ARCHIVES OF SURGERY.

JULY, 1891.

A GERMAN SURGEON OF THE LAST CENTURY.

Dr. Aug. Gottlieb Richter was Professor of Medicine in the University of Göttingen. In 1793 (the year of John Hunter's death) he published a small work entitled "Medical and Surgical Observations." It consists solely of cases, with very brief comments. Some of the narratives are, however, of much intrinsic value, and they also afford good illustrations of the practice and doctrines of the day. This book was translated in 1794 by Dr. Thomas Spens, and the translation was dedicated to the Royal College of Physicians of Edinburgh, to which body, indeed, the original work had been inscribed. Dr. Richter appears to have been both physician and surgeon. He tells us that there were only fifteen beds in the Göttingen Hospital, and that he did not wish for more. He held that experience was "the result not of seeing merely, but of reflecting," and that a physician who visited a hundred and fifty patients daily had "so little pretensions to the title of an experienced practitioner, that I would even deny he had any experience at all." In making this remark he appears to forget that the number would not all require equal attention, and that for a man to become experienced in respect to rare maladies, it is absolutely necessary that he should be able to select from a wide field of observation. At the time that his work was published, Richter had been director of the hospital for twelve years. He makes a sort of mock apology to his

readers for not always recording anything as to his patient's temperament, &c., adding, "I deliver what is essential only; for nothing, in my opinion, is more tiresome and prolix than a dry history of a case copied from the daily registers, with a number of trifling circumstances of no importance whatever." He boasts "I have related minutely the history of one case only." He assures us that all his narratives are from the bedside, and adds, "I present to my readers not merely what I have seen, but likewise what I have thought; they will therefore see not my patients only, but myself also."

The cases which are thus introduced to us are most of them very well told, and the vision that we obtain of their narrator is that of a careful, well-informed and sagacious man. It is unnecessary to say that the pathology is often very vague and the diagnosis uncertain. German medicine was not, at that time, in any advance of that of Great Britain, and Dr. Spens, in offering his translation, expresses a wish to clear himself of any suspicion of carelessness or ignorance by warning the reader that "the learned professor still retains many doctrines which have been long since exploded in this country." He seems to think that his author's developed education has been to some extent an encumbrance to him, for he writes, "Richter's intimate acquaintance with all the learning of the ancients is too well seen, since it often confounds his purer notions and gives a bias to his judgment."

The number of chapters is twenty-five, and of cases seventy-nine. That I may first discharge the less agreeable duty of critic and justify what I have said as to inadequacy of diagnosis, I will mention the last two cases. One of these is named "A Case of Fungus Articuli," but appears to have been nothing but synovitis of the knee, in a boy, from a blow. It got quite well, in one week, under treatment by tartar emetic in small doses, and a plaster of ammoniacum. In another, a case which was clearly one of a soft malignant growth from the carpus, and which after amputation through the forearm resulted in death by axillary gland disease, is called a "Steatom of the Hand." The patient in this case was a young woman of 25, and the growth was so large that "instead of a hand there seemed to hang from her arm a large un-

shapely mass, the points of the fingers projecting." It had been growing two years, and the patient died with all the symptoms of recurrence in several different parts, two months after the amputation. The worst part of the pathology is that Richter, instead of attributing the event to the delayal of the operation, holds that the latter was really responsible for it, and expresses his belief that "the removal of steatomatous swellings may be productive of ill consequences, and cause the translation of the morbific matter to other parts." This is putting the cart before the horse with a vengeance. These two cases have their value as showing the different senses in which names were used a century ago.

A chapter on "FLUXUS CŒLIACUS" introduces us to a disease of which the very name has been forgotten. It is given to the passage of white or creamy evacuations, unmixed with feces, but attended by tenesmus and often with streaks of blood. Of one patient who suffered from it Richter writes, "the desire for this evacuation always came so suddenly and with such tenesmus that as soon as he felt it he was obliged to hasten aside. The evacuation did not unfrequently take place in his breeches. The white stuff was always quite pure, never mixed with fecal matter. He had a natural stool generally in the morning, which happened without any tenesmus." The quantity voided rarely amounted to more than a tablespoonful, but might come away many times in the day. Two cases are related. In both it persisted for some time, but was finally cured. Richter is no doubt right in holding that the fluid is a mucous secretion from the rectum. With Vogel he denies that it is chyle. He suggests that the disease may be called "*fluor albus intestini recti*," but adds, "if people choose rather to call it '*hæmorrhois mucosa*,' I have no objection." It is possible that it differs chiefly from the cases in which fibrinous casts are voided, in the part of the bowel which is affected. The two occur to the same class of patients, and both are attended by some fever and loss of strength.

One of the most interesting narratives is that of a girl of twenty, in whom, in consequence of ulceration after small-pox in childhood, the vagina had become occluded. She had

been treated by several other physicians by emmenogogues, but Richter examined her and at once found what the real nature of the difficulty was. The cicatricial obstruction was very dense. The operation was performed with a bistoury, a finger in the rectum being used to direct it. The usual tar-like fluid was obtained in considerable quantity, and after using an injection a tent was introduced to keep the wound open. Within twenty-four hours the fluid, which at first was quite inodorous, had acquired "an intolerable cadaverous stench which in a few moments filled the whole room." This was rightly regarded as an indication for the immediate and complete evacuation of the cavity. The wound was dilated by the finger, and water and honey injected until the fluid returned clean. Richter insists upon the importance of complete evacuation of the whole of the accumulated blood. "Mr. Steidele saw a girl die after this operation, in consequence of a putrid fever, and I strongly suspect that the neglect of the above-mentioned rule was the occasion of it." Many of us could confirm Mr. Steidele's experience, but unfortunately the result is not always to be avoided by attempts at complete evacuation. There can be no question as to its urgent necessity under such circumstances as those described, when the fluid has become decomposed. When a pupil, I assisted at an operation for imperforate hymen which terminated fatally by peritonitis from decomposition, with, possibly, regurgitation of the fluid. In this instance the occlusion was simply membranous; but I also remember well the case of a daughter of a medical friend in whom the history was, as in Richter's, of ulceration of the vagina in childhood and consequent obliteration. I had some difficulty in finding my way through the tough cicatrix, but the case did well, and the patient afterwards married.

Richter practised in Ophthalmic Surgery as well as in other branches. After recording a case of fistula lachrymalis in which he made a free opening into the nose, and then retained leaden probes for long, and had only a disappointing result, he writes, "The operation for the fistula lachrymalis is in general an uncertain operation. It seldom restores the functions of the lachrymal ducts to their former perfection."

"In the end the patient derives little, frequently no advantage at all." Such is, I suspect, the general verdict of modern ophthalmic surgery. The use of probes, styles, &c., is of advantage only so long as they are continued, and unless the condition is attended by more than usual inconvenience, it is better to be content by advising the patient to carefully empty the sac by pressure, than to resort to instrumental treatment.

It is to be remarked that throughout the book there is scarcely a mention of syphilis. Nor, so far as I have observed, did Richter in any case bleed his patient. He is not, however, afraid of strong remedies, and appears to have used mercury, aconite, and tartar emetic freely.

Richter's remedy for amaurosis, "Gutta serena," was tartarised antimony in combination with ammoniacum and assafetida. He pushed it until the patient was made sick, and continued it for months, sometimes giving emetics in addition. He avers that he had some very remarkable recoveries. His patients appear to have been usually young adults, and no doubt the disease was neuritis.

The one case which our author indulges himself by describing in detail is an instance of severe general dropsy, "Hydrops vagus." The patient, a young man, relapsed after several apparent cures by diaphoretics; finally he was immensely benefited, when in a most desperate condition, by the puncture of his legs. In the end he seemed to be cured. It was, of course, before the knowledge of albumenuria, and Richter shows his sagacity by insisting that many cases of dropsy occur without any obstructive visceral disease. "I doubt much whether obstructions of the viscera be the most frequent or chief cause of dropsy. Debility seems to have greater share in this disease. That it sometimes arises from debility alone, and that sometimes tonics only are necessary, is beyond dispute." The importance of the skin and its functional activity are well recognized. "A dry skin and sparing urine are not occasioned by a defect of watery fluids, but are effects of an irritation, and of spasm the consequence of it." If to "spasm" we might add "of blood-vessels," his conjecture is probably very near the truth. "In one patient, a few days before a new or increased dropsy, the skin always became

uncommonly dry, and the urine began to flow very sparingly." He speaks of a syphilitic dropsy, but without giving any particulars as to diagnosis, and says that it is quickly cured by mercury. "I once saw a patient who began to make water freely with the second tablespoonful of the solution of corrosive sublimate, and by the continued use of this solution the flow of urine was kept up till the dropsy had entirely disappeared."

There is a chapter on Diseases of the Breast, an important one on Jaundice, and one on Diabetes. Of the latter disease the diagnosis in those days was of course very vague.

Hydrocele, Richter was accustomed to treat by an incision, and says that it never failed if carefully done.

Concerning the operation for Entropion, he makes the practical remark that usually the operator takes much too little skin. I may add that it is usually a mistake to take only skin; a portion of the muscle should be taken also.

The last case which I have to mention is one in which an enormous gall-stone was removed (after death). It is, I think, the largest that I have ever seen described. Concerning this case Richter writes, "There was a stone in the ductus choledochus which, on account of its uncommon size, I have caused to be engraved in the annexed plate. It weighed three ounces five drams. All round the stone was fluid bile, so that this fluid had evidently passed by the stone into the duodenum. It fell into three pieces on being taken out. The external surface resembled a very firm extract of liquorice. On some places there were evident marks of other stones adhering to it. The thick end of the stone was in the duodenum, the most pointed was turned towards the neck of the gall-bladder." The subject of the case was a man of 40, who died in the hospital at Goettingen in March, 1792. He had had jaundice for four years, and had been liable to colic, &c., much longer. His jaundice had increased of late, and he had had pains and feverishness. His whole body was of a dark yellow colour, and in some places even of a dark brown. His stools were white, and his urine contained bile. Before death, bile returned in his stools. He had rigors and fever, with *transitory blindness and vertigo*.

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PLATE LXXXVIII.

GALL-STONES OF UNUSUAL SIZE.

Fig. 1. The gall-stone described at page 6. It was removed after death from the gall-bladder of a man who had for years suffered from jaundice.

Copied from Richter's plate.

Fig. 2. A gall-stone which was voided by an old woman after a nine days severe illness. It weighed 160 grains; had a diameter of 1 inch and 2 lines. The case is described by Dr. Craigie in the 'Edinburgh Medical Journal,' vol. xxii. p. 240. A synopsis of it is is given on page 9 of the present number of 'Archives.'

Fig. 1

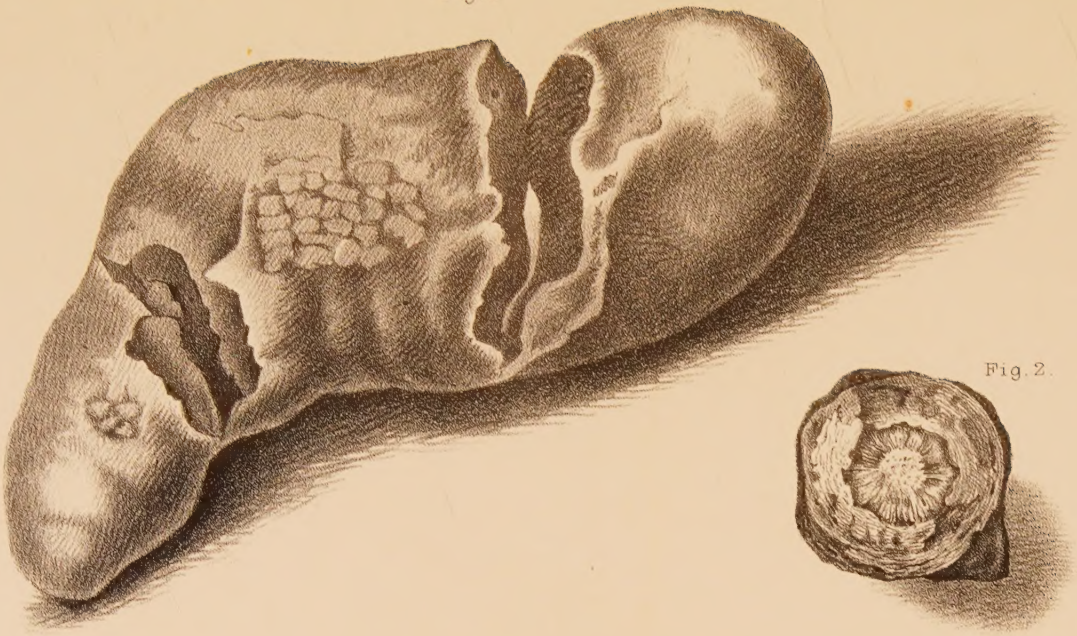

Fig. 2.

West, Newman, lith.

During the last week he was always sleepy, and often insensible. There was some vomiting. His abdomen was distended and his feet swollen. After two or three days of insensibility, he had delirium and convulsions just before death. The liver was adherent to the parietes, &c. The gall-bladder was five inches long and two broad. It was full of dark bile, and contained thirty gall-stones. From the substance of the liver "dark brown bile issued as from a sponge."

We have in this narrative an excellent illustration of the symptoms produced, and the sufferings entailed, by the long-continued impaction of a calculus in the ductus communis. Four years' jaundice, the skin almost black, attacks of colic, and, finally, death with brain symptoms: such is the picture, and it is probably a typical one. The case is worth remembering were it but to excite our grateful appreciation of the advances of modern surgery. Nothing but an operation could have saved the man, and in all probability that would have done so.

With this extract I lay aside a book written with a most agreeable simplicity and directness of purpose, and well suited to beguile a spare professional hour.

INTESTINAL OBSTRUCTION FROM A GALL-STONE.

(*Continued from Vol. II. page* 11.)

I HAVE found recorded, in much detail, a case of very severe abdominal illness in connection with the passage of a large gall-stone. It so well illustrates what I have already written respecting these cases, that I am induced to give an abstract of it. It will be seen that the patient passed into a most critical state, and that she suffered during nine days all the symptoms of urgent abdominal obstruction, being finally and completely relieved by the escape of a large gall-stone. At any stage of her illness an exploratory operation (abdominal section) would have been justified, nay, according to the opinions of some, this measure was urgently demanded. Yet I do not hesitate to believe that had it been employed the patient's chance of recovery would have been much diminished.

The statements which I have made respecting this group of cases are—1. That it is impossible to distinguish them from obstruction from other causes. 2. That jaundice is often absent. 3. That the condition produced is often very urgent, but that nevertheless, with patient waiting, recovery generally takes place. All these assertions are well illustrated in the appended narrative.

There was no history of any prior attack of hepatic colic, and the illness described no doubt included the passage of the stone through the duct as well as its transit through the bowel.

Dr. Craigie, in recording the case, states that he did not suppose that the stone obstructed the bowel, but that all the symptoms occurred during its passage through the duct. Although during the treatment of the case it was never thought to be gall-stone, and although it was at one time proposed to explore all the hernial regions, yet it was remem-

bered afterwards that the worst pain had been over the gall-bladder.

CASE IV.—*A nine days' attack of severe abdominal obstruction, in an old woman, safely terminated by the escape of a very large gall-stone.* From the *Edinburgh Medical and Surgical Journal*, vol. xxii., 1824. Dr. David Craigie.

DATE.	DAY OF ILLNESS.	DETAILS.
1823.		
Mar. 28	1	A healthy old woman walked from Leith to Edinburgh, and in the evening was sick and had pain over the whole abdomen.
29	2	Worse in all respects. No action of bowels; careful search for hernia, but none found. No jaundice.
30	3	She was bled, and had enemata and purgatives. All the symptoms continued. No jaundice.
31	4	Incessant vomiting; obstinate constipation, pain, occasional hiccup. Whole abdomen tender. Tongue dark brown and very dry. Face and extremities inclined to be cold. Warm bath and bleeding afterwards.
April 1	5	Much worse. Vomiting almost constant. Tongue dry, hard, and brownish. Countenance much shrunk and pale. "All the phenomena of iliac passion." A surgeon was consulted in reference to hernia.
2	6	Opium was used, and assafœtida and turpentine injections. Somewhat better, but the symptoms persisting. A tobacco injection. She was so ill that it was expected she would die in the night.
3	7	Somewhat better.
4	8	Easier; pain less, and but little vomiting. After another tobacco enema she voided, with sharp pain which made her faint, a gall-stone which measured an inch in diameter.
5	9	Passed free motions, and was quite relieved.

The patient afterwards regained good health.

It is a question of much interest to ascertain in these cases whether the stone is usually engaged in the common duct during the severity of the symptoms, or whether it constitutes a cause of obstruction in the intestine itself. It might have been expected that such cases would be divided into two definite stages, a first, one of acute pain and irritation, indicative of the passage through the duct, and the other of a mild form of intestinal obstruction, denoting its journey through the intestinal tract. Dr. David Craigie, the narrator of the present case, took for granted that the whole illness was due to the irritation caused by the stone whilst in the duct, assuming that when it dropped into the duodenum it would no longer cause any symptoms. If we remember the difference in calibre between the duct and the bowel, it may seem right to suppose that any body which could pass the former would cause no symptoms in the latter. As a matter of fact, the very largest gall-stones are not so large as certain foreign bodies (egg-cups and the like) which have gone through the bowels without causing obstructions. It is certain, however, that gall-stones, when large, may plug the intestinal tube and produce symptoms of urgent obstruction until they reach the cæcum. The cases published by Mr. Bryant and Mr. Thomas Smith fully prove this, for in each the stone was found tightly grasped in the ileum. Nor, strange as it may appear, is it usually possible to make any distinction of stages. The cases all set in with pain and sickness, and these symptoms are quickly followed by those of persisting obstruction. No period of relief marking the escape into the duodenum is usually observed. I believe I am right in saying that in no case yet on record have either the case-history or the symptoms enabled the surgeon to diagnose the cause with any confidence. In most so urgent has been the condition, and so continuous the symptoms, that the correct diagnosis has not been even discussed. I am speaking, of course, of cases in which the diagnosis was finally cleared up by either an operation, a post-mortem, or the passage of the stone per anum.

The fatal cases on record are exceedingly few. It is, I would submit, very probable that not a few of the cases which

recover after symptoms of some urgency, but without any positive diagnosis, are really of this nature. In some it may be that the stone never leaves the duct; in others it may be permanently retained in the bowel; and in others it may be voided by stool and escape notice. The latter event is perhaps not very common in the case of really large stones, for they cause such pain in their escape at the anus that they can scarcely be overlooked. In the present instance, such was the pain that the patient fainted. Still it is not always, even after a very painful evacuation, that the stool is critically inspected.

I feel obliged in the light afforded by other cases to differ from the narrator of the above case, and to believe that the symptoms were due to the presence of the stone in the bowel. Probably it escaped very quickly from the common duct. Had it not done so, jaundice must have been produced. We may suitably contrast the case with the one recorded by Richter, which I have given on an earlier page. In the latter the stone had remained in the duct, and there had been four years' jaundice, but no symptoms of obstructed bowels.

ON SPONTANEOUS HÆMORRHAGE INTO THE VITREOUS.

In the Journal of the Ophthalmic Society, Vol. I., I published the case of a young man who afforded a very good example of the peculiar tendency to intra-ocular hæmorrhages which sometimes occurs in early life, and of which the male sex, almost exclusively, supplies the subjects. The particulars of his case were briefly these: The patient was a man of twenty-three, unmarried, subject to cold feet, flushing of the face, head-aches, and epistaxis. One eye had been removed in July, 1877, on account of repeated attacks of hæmorrhage into the vitreous and retina, which had resulted in painful glaucomatous tension. I saw him two years later, in 1879, and he remained under my observation for about two years, during which he had repeated attacks of hæmorrhage into the vitreous of his remaining eye. The blood clot was usually quickly absorbed, and excepting that permanent opacities remained, the organ was not materially damaged. I have recently seen this patient again, and as his case is a typical one of its class, and as an interval of more than ten years has elapsed, it may be worth while to record its subsequent progress. Mr. P—— is now thirty-five years of age, and has the appearance of good health. He is still unmarried and continent, and still suffers from nocturnal emissions. His circulation is much less easily thrown off balance than it formerly was. He does not so easily flush, does not suffer so much from cold extremities, and never has epistaxis. He complains, however, somewhat bitterly of his nervous state, says that he often has very uncomfortable feelings in his head, low spirits, and a sort of tension about his heart. He has certainly not had any severe attacks of hæmorrhage into

the eye of late, but it is possible that he may have had some slight ones. The organ has served him well, and he can still see perfectly. I did not venture to use the ophthalmoscope, because on a former occasion a blood-vessel gave way into the vitreous whilst I was doing so. My former record of this case was accompanied by a detailed report by the late Dr. Mahomed, on the state of tension of the arterial system. Dr. Mahomed, contrary to expectation, found the tension below normal. At that date the temporal arteries were enlarged, sinuous, and easily visible, although the patient was only twenty-three years of age. At present I cannot feel any doubt that the tension of the arteries is increased. The radial pulse is sharp, and is easily felt half-way up the fore arm. I could also very easily count the pulse between the metacarpal bones, *i.e.*, between the thumb and index finger. Dr. Mahomed's diagnosis, as regards the heart, was that there was some dilatation of the right cavities, but no material hypertrophy; and the conditions at the present date seem to be much as they were then. Thus, on the whole, we may say that with progress of years, Mr. P—— has decidedly gained in general health; and it is very satisfactory to note that an eye in which, ten years ago, there was optic neuritis with many small hæmorrhages into the retina, and repeated attacks of extravasation into the vitreous, has, in spite of constant use, worn well, and is now, for all practical purposes, perfect. This fact is certainly of much value as regards prognosis in similar cases. The treatment which I advised, and which has been carried out ever since, was entire abstinence from stimulants and careful attention to the bowels, with avoidance of all stooping occupations, and of all causes of vascular excitement. In attempting to explain the cause of these spontaneous intra-ocular hæmorrhages, I laid considerable stress upon the inheritance of weak arteries in connection with gout. There was a strong gouty history on the paternal side. It is of interest to add that Mr. P—— now tells me that quite recently his mother has also had an attack of arthritis, which her surgeon diagnosed as "gout."

In the paper to which I have referred, I gave the particulars of some other cases of spontaneous hæmorrhage into

the structures of the eyeball, and also quoted from a valuable report which had been published by Mr. Eales, of Birmingham, on the same subject. Since then I have had no great additions to my experience, a fact which is partly explained by the circumstance that I do not now hold a hospital appointment, and partly by the great rarity of the cases. Nor am I aware that any material additions have been made to our knowledge of the subject by other observers. It may be of interest briefly to summarize the facts which seem to have been established respecting it. Restricting our attention to cases of spontaneous and recurring hæmorrhage into the eye-ball, occurring in young persons, we may, I think, assert :—

First, that the male sex is far more prone to suffer from them than the female.

Secondly, that the age most liable is that between puberty and early manhood.

Thirdly, that the left eye almost always suffers first, and sometimes alone.

Fourthly, that when young women are the subjects, it is usually in cases in which menstruation is suspended.

Fifthly, that there are usually present other evidences of want of balance of circulation, such as cold extremities, liability to flush, proneness to epistaxis, &c.

Sixthly, that the inheritance of gout, attended as it is by peculiarities in arterial structure, may be a predisponent cause.

Seventhly, that the principal exciting cause is undoubtedly variations in arterial tension, in connection with the influence of the sexual system.

Eighthly, that the most important means of regulating the arterial tension is the liberal use of aperient medicine.

Spontaneous Hæmorrhage into the Vitreous of both Eyes in a young man in good health—Loss of one eye.

Another example of spontaneous hæmorrhage into the vitreous has during the last year come under my notice. As usual, the patient was a man, unmarried, and young; but beyond these facts there was little or nothing to be stated as

regards predisposing conditions. He had never suffered from epistaxis, nor from constipation. He had never had severe headaches, and, so far as he knew, there was no gout in his family. He had been accustomed to work hard as a farmer in New Zealand, and had enjoyed, until his sight failed him, excellent health. One of his brothers had suffered a good deal from epistaxis. The history as regards his eyes was that one morning, about fourteen months before I saw him, he had found that his left eye was dim. He noticed a red colour before his sight. After a while his sight in this eye began to improve, and had soon increased up to its present standard. Two months after the left the right eye failed, and after a series of attacks it became almost blind. When he came to me he had slight divergence and almost total blindness in the right eye. The whole vitreous was opaque, and no reflex from the fundus could be obtained. A brownish surface was visible behind the lens by focal illumination. With his left eye he could with effort just manage $\frac{20}{200}$. In it several floating opacities were visible, and a long line of greyish opacity was seen just in front of one of the retinal vessels in the upper part of the field. It was probably in the vitreous. There was no increase of tension nor any pain in either eye. As it seemed probable that the right eye had been for the last six or eight months in its present condition, that is with the vitreous disorganized by a large effusion of blood, there seemed but little hope that it would ever clear, and I contented myself by advising him to take aperients freely, with a view to the safety of his remaining eye. Fortunately there was no history of hæmorrhage into it for the last twelve months. On questioning Mr. C—— most closely as to his knowledge of any possible cause, I could illicit nothing but that he attributed it to his having sprained his back in carrying a heavy sack. He said that about two months before his sight failed he had one day, during an effort of this kind, felt a sharp pain in his back. For a week after the occurrence of this pain he could not stoop, and was unable to do any work. He did not, however, keep his bed, nor consult any medical man. It is not easy to suggest any connection between this occurrence and the hæmorrhagic attacks. There was no remarkable sharp-

ness of pulse. He complained that he felt a little giddy in stooping.

Hæmorrhage into the Vitreous in a young lady in whom menstruation had been long suspended.

To the two cases given above, I may add a third which I have recently seen. In this instance, as a remarkable exception to rule, the patient is a female. To confirm the rule, however, we have the fact that she had not menstruated for ten years, although only thirty-two. Miss O—— is a young woman of highly nervous organization, who six or seven years ago went through a cerebral illness which was at first called hysteria, but which was attended by unconsciousness, and which left her optic discs white. Recently she found after stooping that one of her eyes was dim, and that she had a red mist before it. She came to me a month later, and I found a large filmy opacity in the vitreous, the result, no doubt, of an extravasation of blood.

Just before my first report on this subject, Mr. H. Eales had published in the *Birmingham Medical Review* for July, 1880, some cases of a similar nature, and a year or two subsequently he took up the subject again in a paper given in the *Ophthalmic Review* for January, 1882. In response to an inquiry from me as to his latest experience, and more especially as to the further progress of the cases reported, Mr. Eales has been good enough to write the following letter, with which I am glad to enrich my Archives :—

LETTER FROM MR. HENRY EALES (SURGEON TO THE BIRMINGHAM AND MIDLAND COUNTIES EYE HOSPITAL).

EDGBASTON, *May* 11, 1891.

DEAR MR. HUTCHINSON,

In reference to the subject of recurring hæmorrhages into the vitreous in young men, I wish to say that only one of the cases reported in the *Birmingham Medical Review* for 1880 has remained under my observation up to the present time, namely Case IV. (R. S.).

Another was more or less constantly under my observation up to the time of his death in 1887, namely Case II. (H. L. J.). Case I. (G. B.) was last seen in 1886, while the others have been lost sight of since 1881.

Case IV. (R. S.) has been more or less under constant observation since 1880 to the present time, and is now twenty-five years of age. He is of somewhat effeminate appearance, has light complexion and eyes, and is of medium height.

He has had repeated attacks of retinal hæmorrhage, and hæmorrhages into the vitreous of each eye, too numerous to number, some severe, many slight; and also repeated epistaxis, which he has suffered from ever since he was between twelve and thirteen years old, more especially in the summer months. His first attack of retinal hæmorrhage, for which he consulted me, occurred when aged fourteen years, in December, 1879. When I saw him on January 11, 1880, three weeks after the onset, the L. eye was most severely affected, the vitreous being opaque, and V = objects only; but the R. eye also showed several small roundish hæmorrhages at the periphery (evidently retinal), though he was not conscious of anything wrong with this eye; since then one or other eye has three or four times had its vision reduced for weeks to objects only, by hæmorrhages into the vitreous, while he has had innumerable slighter attacks in each eye. The last attack occurred in the L. eye in May, 1890, while the last attack of epistaxis occurred in September, 1888.

When last seen on April 11, 1891, his condition was as follows:—

R. eye V $= \frac{15}{200}$ c—3D. Fundus cannot be seen in consequence of a dense dark opacity of the posterior capsule, covering its whole area, and most intense in the centre. Vitreous apparently translucent. T. N. Iris free.

N.B. — He has never had any iritis or inflammatory symptoms. This opacity of the capsule occurred after a severe attack of vitreous hæmorrhage in May, 1882, and has remained ever since. It came on after cutting grass with a lawn-mower, and reduced V to objects only; but in October, 1883, it was noted that V $= \frac{5}{60}$, best with —3D, whereas when

previously seen in December, 1881, R. V.$=\frac{15}{20}$ unaided. Since this attack he has had several more in this eye, the last occurring in May, 1890.

The present state of his L. eye is as follows:—

L. eye V.$=\frac{15}{20}$, with pupil dilated with homatropine. There is no H, refraction being emmetropic, as when first seen in 1880.

In the vitreous is seen a long white glistening fibrous band reaching from the inner ciliary region to the nasal side, and just anterior to the disc. There are some smaller glistening fibrous bands in the vitreous, specially opposite two patches of atrophy in the choroid at the periphery—one above, and one on the nasal side. There are no evidences of recent retinal hæmorrhage.

The choroid is normal except for these two patches, which only involve its superficial layers; and crossing each of these areas is a branch of the retinal vein.

N.B.—These areas were each noted in 1880 as small globular detachments of the retina, with a retinal vein running over their apices; while apparently continuous with the retinal veins at this spot, long dark strings of opacity (evidently hæmorrhagic) extended into the vitreous.

In 1882 the retinal vein passing over these areas exhibited remarkable corkscrew tortuosities, now absent; while one or two other areas of remarkable tortuosity in the veins previously noted are now absent. I imagine, therefore, that these tortuosities were caused by the damage to the retina here, and were not the cause of the hæmorrhage; but of this I am uncertain. The retinal veins have always appeared unusually full, distended, and somewhat tortuous over their whole extent. They do so still.

The hæmorrhages, when observed, have always been very dark, mostly peripheral, often near a branch of the veins, and sometimes into its sheath, and generally roundish in shape, many evidently being in the deep layers of the retina; but I have never noted any as obviously choroidal, nor have I ever seen any obvious choroiditis or retinitis.

The attacks in the eye were often first noted in the morning on rising, or occurred after some unusual exertion, or fre-

quently after coughing, laughing, sneezing, or some cause of embarrassed respiration, or after stooping.

Not once since October, 1883, has the L. eye had an attack serious enough to seriously interfere with V.

He has always suffered from headaches, dyspepsia, and constipation, and so severe is the latter that at times (once recently) several repeated doses of purgative have been required before the bowels were moved, and usually purgatives do not have any effect under forty-eight hours.

The pulse has always been about 50 or 55, but the sphygmograph has shown no increased tension, and it is easily excited by exertion to 72. No cardiac disease.

He always suffers "a most dreadful sensation as if his head would burst" if he stoops, and the eyes are often puffy in the morning, and dark around them. His face easily flushes, especially after taking any stimulant. He suffers severely from sweating feet, and has always been subject to chilblains till the last few years.

His urine has often shown a distinct cloud on boiling, but no obvious albumenuria, and casts have never been found. Urate and phosphates are often present in abundance; sugar has never been found.

He has never appeared to be anæmic, and the blood examined microscopically, and with the hæmocytometer, has never shown any evidence of anæmia.

There is no history of hæmophilia, no evidence or suspicion of syphilis, acquired or inherited. He has had acute rheumatism, after scarlet fever many years ago. A brother has had rheumatism, another brother pleurisy. His father, a paternal uncle, and a brother have suffered from epistaxis when young. No history of gout in family.

Case II. (H. L. J.) was a tall lad, also effeminate in appearance, spare and feeble. Pulse of 55 habitually, but easily excited; no increased tension shown by sphygmograph, no cardiac disease. *Urine*, no albumen or sugar, often contained phosphates and urates in excess. Had same trouble from epistaxis from early childhood; constipation, and same obstinacy after purgatives. No anæmia found even with hæmocytometer. Same tendency to flush in face, specially

after stimulants. Dyspeptic, and suffered from low spirits and became hypochondriacal. Same history of repeated attacks in each eye up to the time of death in 1887. Seldom or never able to see well with each eye at same time. Hæmorrhages same in character, mostly peripheral, excited by same causes, specially laughing; no history of gout or hæmophilia or syphilis; choroid not affected.

In 1883 he was under Dr. Pavy at Guy's Hospital, who seems to have told him he was suffering from "Dilated stomach." From this time he became more and more hypochondriacal, and always depressed with the idea that his "insides were displaced." He refused to eat much food and became emaciated, being reduced at last to about six stone, his original weight when first seen in 1880 being 9 st. 12 lbs. So ill did he become, that his father first consulted Sir James Sawyer, and subsequently Sir Walter Foster, about him, and at the suggestion of the latter that nothing but massage could save his life, he went to London and placed himself under the care of Dr. Playfair in Fitzroy House in 1884, where, under massage, in six weeks he gained 36 lbs. in weight. On leaving this, at Dr. Playfair's suggestion, he went on a voyage to America, and while there had a bad attack of hæmorrhage into one eye, and subsequently returned somewhat better in health, but still suffered from occasional attacks of hæmorrhage in each eye. It was not long before he began to relapse, and in 1887, being very ill, he was placed under Dr. Saundby's care (as he had previously seen him with me several times), and he died from hysterical anorexia.

After death his food (accumulated for many days) was found secreted up the chimney and between his bed mattresses, the nurse having obviously failed to carry out strict orders to see him eat the meals that were brought him. A post-mortem of his thoracic and abdominal viscera was made at his parents' request, and these were all found to be normal.

The head was not examined, nor were the eyes. I am informed that he complained of attacks (? of hæmorrhage) in the eyes almost up to his death.

One other case (G. B., *Case I.*) has once come under my

observation since 1882, namely in 1886, when the R. eye was found normal, while the L. eye was blind, with + tension, dilated pupil, and opaque vitreous. He stated that he had had no attack in his R. eye since I first saw him.

The other two cases have been quite lost sight of.

I am indebted to Dr. Saundby for reports on the state of the heart, pulse, urine, and blood in each of the cases reported.

Since my first paper in 1880, I have seen three other cases at our Eye Hospital which appeared similar; but unfortunately, though they gave a history of repeated attacks of retinal hæmorrhage in each eye, for which they had previously consulted others, they only attended a few times, apparently not thinking the matter serious, or worth while frequently attending, and disappeared. As in consequence of the pressure of work at the hospital no full notes were previously taken of their cases, and no addresses had been kept, I have had no means of following up the cases or getting further details. For some five years I have not seen any similar cases, and have come to the conclusion that the condition is a rare one.

I ought, however, to say that in 1886 I saw a case which seemed in every way similar except the patient's age. He was a man aged thirty-eight, a painter, and had not had any trouble with his eyes till shortly before I saw him, when this condition set in, apparently in consequence of the shock of a severe injury, for which he was detained for many weeks at the General Hospital, under the care of the late Mr. Bartlett, who advised him to see me about his eyes when he was well enough to leave the hospital.

On examination I found some roundish hæmorrhages in the R. eye, mostly at the periphery, V—$\frac{15}{12}$; but in the L. eye the vitreous was opaque and V=$\frac{5}{50}$ only, and recent hæmorrhages were seen at the periphery.

He had several relapses of intra-ocular hæmorrhage. He had a slow pulse (60), suffered from constipation, and had always been liable to epistaxis.

He also suffered from flushing of the face, and a "bursting feeling" on stooping, and many attacks had been brought on by stooping, coughing, &c.

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He was extremely nervous, anxious, and low-spirited. Had no albumen in his urine, and no sugar either, and was not apparently anæmic, or suffering from lead-poisoning, or syphilis.

I lost sight of this man in 1887.

I have so far seen nothing to lead me to alter my view as to this condition being due to a vaso-motor neurosis, but have rather felt confirmed in this than otherwise, though I feel even this is only a very imperfect explanation. The hæmorrhages appeared to be mostly capillary or venous, in all the cases.

Yours truly,
H. Eales.

Mr. Eales' experience of this malady has been much more extensive than my own, but it will be seen that we arrive at very similar conclusions. Our patients have been feeble, nervous, and hysterical lads, with here and there a remarkable exception. We have each of us had one case in an adult. Neither of us have put on record any facts as regards masturbation, but I may here say that in more than one of my own cases the patient mentioned this habit as an imputed cause. Extreme depression of spirits, amounting almost to insanity, was present in several of our cases. The infrequency of the disease in females may be held to be proved. I quite join with Mr. Eales in his opinion as to the frequency of constipation as a symptom and the importance of purgation as a measure of treatment.

CASES OF THORACIC OBSTRUCTION SIMULATING RAYNAUD'S PHENOMENA.

"Case of a Blue Girl, with Dissection."

I FIND recorded in the first volume of the *Edinburgh Medical Journal*, under the above quaint title, a case which deserves to become classic. It affords the best illustration with which I am acquainted of cyanosis wholly independent of organic heart disease. The patient's symptoms were observed by Dr. Alexander Marcet in Guy's Hospital, and the post-mortem was made by Mr. Astley Cooper. The principal facts are as follows. A servant girl, of 21, thin and spare, came under Dr. Marcet's observation in the clinical ward, on the 3rd of April, in a condition of general blueness, "such as could scarcely be exceeded by any purple paint." The colour was deepest on her legs, feet, and face. It was naturally supposed that she was the subject of congenital malformation of the heart; but her mother asserted that the condition was only of seven weeks' duration, and that she had never been previously liable to it. Death took place two days after her admission. Her symptoms had been great debility, with shortness of breath and a frequent wheezing cough. She had also some general œdema of the extremities. She was very thirsty; would doze most of the day, but became restless at night. Her most comfortable position was, with head and shoulders a little raised, on her back, but she could also lie well on the right side. Her feet were cold, but other parts normally warm. Her pulse was 120, and so feeble as to be scarcely perceptible at the wrist. She had been seven weeks under treatment at her home before she was brought to the hospital, and was somewhat salivated. On the day of her death the conditions above mentioned were in-

creased, but she had no pain, was perfectly conscious, and answered all questions as well as her breath permitted. Her breathing was so rapid and feeble that the contractions and dilatations of the chest were scarcely perceivable. Her only complaint was of excessive shortness of breath. On the day after death the blue colour had almost wholly disappeared from the body.

The post-mortem showed perfect soundness of the heart, excepting that it appeared somewhat larger than usual. All its cavities were turgid with blood of an extremely dark hue. The coronary vessels were also turgid with blue blood. Both lungs adhered everywhere to the inner surface of the chest, to the diaphragm, and to the pleura covering the pericardium. These adhesions were some of them of long standing, others just forming. These last were composed of large quantities of coagulable lymph, having the appearance and texture of jelly, and exhibiting signs of incipient organization.

The lungs were distended with dark-coloured blood. They were free from tubercles. Although more compact than normal, no part sank in water. There was no disease in the abdomen excepting that the liver adhered to the adjacent peritoneum.

We appear to have in this narrative a type-example of double and universal pleurisy, with fibrinous, as distinguished from fluid, effusion. This was the one condition proved at the autopsy, with the addition of extension, probably from proximity, to the peritoneum of the liver. It was an example of embarrassment of the lungs, brought about by simultaneous inability to employ either the chest parietes or the diaphram in the act of respiration. This condition had probably been gradually increasing and becoming more universal during eight months—the duration of the girl's illness. At that date she had, after getting wet through, been attacked by shivering, with pain in the chest and shortness of breath. From that time, although she kept at her employment until seven weeks before her death, she had been continually ill, and blisters, &c., had been used. Her first

cold was caught at a menstrual period, and she never menstruated afterwards.

We may contrast the case with instances of pleurisy with fluid effusion, in which, as is well known, the phenomena of breathlessness are often conspicuously absent. In these latter, the parietes and the diaphragm are free to move, and thus although the chest capacity is diminished, respiration may be carried on without much inconvenience. In cases of paralysis of the external muscles of respiration and immobility of the chest wall, the diaphragm may do much to compensate. With double universal pleurisy, however, such as Dr. Marcet describes, all parts of the movable wall of the thoracic air-chamber would be, at the same time and in like degree, hindered in their normal and necessary movements. Amongst minor points which appear noteworthy are the following:—

The slight degree of general œdema of the limbs (due to venous retardation) and the absence of any tendency to ascites.

The absence of pericarditis.

The absence of suffocative or distressing dyspnœa.

The absence of convulsions and of tendency to coma or delirium.

The possibility that a patient with severe fibrinous pleurisy may continue for months at household occupations.

The disappearance of the blue condition of the limbs after death. This, Dr. Marcet thinks, was to be explained by the continued contraction of the arteries driving the blood into the larger vessels.

It is of interest to contrast such a case as the above with what we observe in Raynaud's malady, and it may in this connection be observed that it is not impossible that in some instances the latter may be complicated by some degree of thoracic embarrassment. As a rule, however, we suppose that in Raynaud's malady there is always, as the starting point, diminution in the calibre of the arteries supplying the affected limbs. This hypothesis is necessary to our definition of the disease, but it by no means follows that other causes of complication may not co-exist.

Two Years' Failure of Health after an Acute Illness—Diffuse and general Fibrinous Anasarca—Blue Extremities—Death—Remarkable form of Fibrinous Pericarditis.

I attach considerable interest to the previous narrative, because it will probably be of use in helping us to the interpretation of the conditions of what make up what are known as Raynaud's phenomena. In some cases in which the latter are present, the blueness from venous obstruction is very great; whilst in others, in which the tendency to sphacelus may be even more marked, the lividity or asphyxia is but little. In the light of such cases as the above, it is fair to suggest that the amount of blueness is in relation not so much to the spasm of the arteries, which is the essential feature of Raynaud's malady, as to the conditions of the individual patient in reference to the pulmonary circulation. If there be disease of the lungs, recent or old pleurisy, tubercular or fibroid disorganization, emphysema, or any other chronic condition impeding aeration of the blood, then we must expect an exaggeration of the lividity of the extremities which may have been brought about by some other cause. No doubt disease of the heart will also take its share in favouring venous turgescence, and in all cases in which Raynaud's phenomena are present it is obviously desirable to inquire as to whether any impediment exists in the chest. It is perhaps even possible that there may be cases, in some sort complementary to the above, in which a rapidly developed enfeeblement of the heart may produce a condition of bloodlessness in the extremities tending to gangrene, just as in the above narrative we have seen that a recently produced impediment to respiration was the cause of a most remarkable development of asphyxial lividity. A case in which all the extremities—fingers, toes, ears, and nose—were attacked with gangrene in a man who had been previously healthy, has recently been under my observation, and after the most careful search for any peripheral cause, the hypothesis that it depended on some very remarkable enfeeblement of the central organ seems to me more probable than any other. This case will be recorded in detail subsequently; for the present I only refer to it in order to illustrate what has been previously said, and to introduce

the narrative of another case. The case which I am about to narrate is an example of fibrinous pericarditis, and may suitably be placed by the side of that of the "blue girl," in whom such extensive fibrinous pleurisy was present. In both cases the development of the condition was insidious, and the conditions so ill-marked that the correct diagnosis was missed. I must apologize to my medical readers for sundry imperfections in the narrative, which is one extracted from my hospital note-books of nearly twenty years ago.

On the 24th of September, 1872, I admitted into the London Hospital, at the request of Mr. Elliott Porter, of Lindfield, a girl named Emma Nuneham, who was the subject of abdominal swelling. She was twenty-one years of age, and stated that she had never been strong; but that she had been able to perform her duties as a domestic servant until May, 1870—that is about two and a half years before. Since that date she had been an invalid, and although able at times to walk as much as a mile or two, she had felt very weak and quite unable to work. The illness in May of 1870 came on, as she described it, gradually; she was giddy, had headache, became very weak, and was at times delirious. Her own expression was that she "used to forget everything." She was three weeks in bed, and then, as has been said, recovered sufficiently to get about again, but not to work. Eighteen months after this illness, and eight months before I saw her, her legs and arms began to swell, and a condition of slight œdema became present over the whole body. She suffered very much from cold extremities, and her hands and feet when chilly would turn quite blue. There was a certain amount of ascitic fluid present, the dulness and fluctuation changing with altered positions of the trunk. It had been supposed that her legs were passing into a condition of elephantoid hypertrophy, for the persistent œdema had made them hard and brawny. This state, however, passed off after she had been in the hospital-bed for a time and bandages had been used. Her urine had been examined by Mr. Porter; and during her stay in the London Hospital it was repeatedly tested, and no albumen was ever found. She remained about two months in the hospital, and was seen by

several of my medical colleagues. We did not succeed in making any diagnosis as to the cause of the general œdema and ascites; and as the œdema of the lower extremities had become greatly improved by treatment, it was thought best to recommend her a change of air, and she was sent to a convalescent home at the seaside. I heard nothing further of her until somewhat more than a year later, when, in reply to an inquiry, Mr. Porter told me that she had recently died in the Brighton Hospital, under the care of Dr. Fussell. On applying to the latter gentleman, he had the courtesy to supply me with the following facts. The girl had been admitted under his care on the 3rd of December, 1873. She had on previous occasions been in the same hospital, under the care of Dr. Ormerod and Dr. Withers Moore. As had been the case in the London Hospital, no special diagnosis as regards visceral disease had been arrived at. Her pulse had been noticed as being, usually, soft and small and about 100. The œdema of the limbs was brawny, so much so as to suggest the diagnosis of lymphatic disease. There was no cardiac murmur; and on repeated examinations of the urine, no albumen was ever found. Some head symptoms were developed a little before her death.

Permission for an examination was obtained, and the one important lesion discovered at the post-mortem was an enormously thick deposit of lymph in the pericardium. Dr. Fussell compared its appearance to that of a thick layer of fat surrounding the heart at all parts, and so much indurated in places as to be almost cartilaginous. Mr. Porter compared it to the pulpy thickening of the synovial membrane in certain cases of "white swelling" of the knee-joint. Dr. Fussell showed the specimen at a meeting of the Brighton Medical Society, and, as he informs me, was asked by a well-known colleague (since deceased) the not unreasonable question, "Do you mean to tell us that not one of you could diagnose this mass of disease?" The specimen is now, I believe, in the Brighton Hospital Museum.

REPORT ON MORPHŒA AND SCLERODERMIA.

(*Continued from Vol. II. page* 236.)

No. XVII.—*Hemifacial Morphœa at the age of three followed by defect of growth—No patches elsewhere.*

Another case showing similar conditions to the preceding came under my notice in the person of a member of our own profession. Mr. B——, at the time that I saw him in August, 1880, was aged 26, and was house-surgeon at a provincial infirmary. The left half of his face was shrunken, the vertical line of demarcation passing down his forehead and chin, but being scarcely perceptible on his nose. It was not exactly in the middle line, being a little drawn to the left, as if by contraction of the parts. The cheek itself was but little atrophied, and not at all hard, but it was decidedly less plump than the other. The deformity was very visible, and just like that of the girl Nicholls, whose portrait is published in the New Sydenham Society's Atlas. It is of interest to note that there was a sort of second band of atrophy passing down the forehead and chin to the left of the median line of demarcation. On the chin this constituted a broad furrow in which scarcely any hairs grew. The eyebrows and eyelashes were perfect, but the whisker was very thin. Mr. B—— was a man of splendid development, and in excellent health. His dentition was perfect, and there was no alteration in the shape of his lower jaw. The form of his eye on the affected side was hypermetropic, that on the other was normal. The history was that the disease had first been noticed about the age of three years, when it was imagined to be due to a

shock from lightning. The conditions of late had not occasioned any sort of trouble.

It is to be noted that in this case, although the disease occurred in very early life, the unilateral atrophy was not nearly so extreme as in many others. This no doubt was due to the fact that the first attack was of less severity than is often the case.

No. XVIII.—*Case in which a single patch of Morphœa was present over the left breast six or seven years without material change—At the end of that time sudden and symmetrical development of the disease on all the four extremities, but with much excess of severity on the left side—Conditions resembling keloid of scar or cancer of skin—Little subcutaneous tumours—Report of progress three years later.*

For the opportunity of seeing this patient I was indebted to Dr. Strothers, of Sheerness, by whom the diagnosis had already been made. The patient was a comely married woman, aged 40, who had originally a very healthy and clear skin. It appeared probable that she had experienced two quite distinct outbreaks of morphœa, the first a small local patch, the second very extensive and with a tendency to symmetry. There was no proof of serpiginous spreading, but upon this important point careful and prolonged observations were needed.

The following notes were taken November 17, 1887 :—

Present condition.—The disease begins just to the left of the middle of the sternum, and passes upward in a large irregular patch towards the shoulder; it tightens the skin over the pectoral muscle so that the arm cannot be lifted far from the side; the whole of the deltoid region is involved, and all of the front of the upper arm, the radial border of forearm, thumb and forefinger. The conditions differ in different parts; thus, over the top of the shoulder there is a considerable group of white "lardaceous" or "ivory"

patches which shine in the light: these are scarcely attended by any thickening of the skin, but in most other parts the thickening is a very conspicuous feature, and almost resembles that of keloid, or even of scirrhus. On first seeing the state of the pectoral region, I certainly took it for scirrhus *en cuirasse*. The patches here are not well-margined, but send out spurs just like those of keloid; the skin here is congested and somewhat glossy. Near to the margins of the principal patches, lines of subcutaneous induration run out into the deeper parts of the skin, and are attended with some cutaneous congestion over them. On the upper arm and forearm the conditions are again much mixed; there are a few tolerably distinct patches indurated and glossy in the middle, with erythematous borders, but for the most part the condition is one broad streak of board-like induration of the skin. The thumb is much stiffened by contraction and induration on its posterior surface; both it and the fore-finger are involved in a slightly-marked hide-bound condition. This hide-bound state is, I think, slightly present in the other hand, especially on the ring-finger. There is no very obvious disease of the other upper extremity, but a very curious feature in the case is the presence of little subcutaneous tumours, movable, and not larger than hazel-nuts. One of these is found on the front of the right forearm, another near the left axilla, and a third near the navel.

The history of the case is that five or six years ago, or perhaps more, a single brown patch showed itself above the left breast; it gave her no inconvenience and she took no notice of it. About a year ago the disease showed itself upon the shoulder, arm, and other parts, by a sudden outbreak. She is in good health, the mother of a large family. Down the front and outer parts of the left leg, and involving the second toe, there are a series of reddened patches of induration in the skin, clearly of the same kind as those on the arm, but not nearly so well marked. At the root of the toe, just as at the border of the thumb, the skin is puckered and depressed so as to draw the toe a little upwards. There is pain in the joint of the third toe in both feet. On the right lower extremity there are similar conditions, but so slightly

marked that, had they been present alone, they could scarcely have been identified. The symmetry in the legs is very marked, and I think there is a tendency to symmetry in the upper extremities, although the difference in severity is very great, so that it might even be disputed whether there is any real disease on the right side, with the exception of the little subcutaneous tumours.

In each case it was soon after the birth of a child that the disease showed itself.

Additional notes three years and a half later.

At my request Dr. Strothers was kind enough to send up his patient for a second examination in May, 1891. It was four years since I had seen her. Mrs. H—— had the appearance of being in excellent health, being florid and stout. She had during the last year borne a healthy child, which was eleven months old. On undressing, she displayed on the pectoral region, just above the left breast and extending almost from the clavicle to the nipple, a broad belt of induration. This belt was of different degrees of thickness in different parts, and was so hard that nothing except a knowledge of the history of the case and examination of other parts could have prevented the diagnosis of "scirrhus en cuirasse." It extended from the middle line to the border of the armpit, where it passed onto the shoulder. It was of a dusky brownish tint in most parts. The mammary gland beneath and below it was much smaller than that on the other side, and I was told that after her recent confinement it had shown no tendency to secrete milk. On the deltoid region on the back of the shoulder there were a few small, white, ivory spots and a considerable number of brownish scars or patches of atrophy, where the disease appeared to have receded. The lardaceous spots were very small. Down the front of the upper arm on the radial border of the forearm there was a band of shrunken skin. It was tight, and of a brownish colour. In this patch the whole of the thumb was involved, and it was much shrunken. All the other digits, and to some extent the hand generally, although much less shrunken than the thumb, were in the hard wooden condition of sclerodermia, and were

dusky from venous congestion. In the opposite upper extremity, in the position where a little lump like a hazelnut was described in the former notes, there was still present in the cellular tissue a diffuse nodule of induration. There were no definite morphœa patches on this limb; but the digits were, as on the other side, hardened and dusky as in diffuse sclerodermia. The lump which in my former notes is described as near the navel on the right side, was still present, and was of extreme hardness. It involved the subcutaneous cellular tissue, was nearly the size of the longitudinal half of a walnut, and from its ill-defined margin and great density would certainly have been diagnosed as a mass of infiltrating scirrhus, had it not been for the other conditions. On the legs the conditions had decidedly receded, the skin was no longer reddened, and the discoloured brownish streaks might easily have been overlooked.

One of the most remarkable features in this case was the presence of diffuse sclerodermia of the hands in association with morphœa patches which were not symmetrical.* This led me to examine the patient's face. It presented no visible changes. The cheeks were florid, and looked perfectly healthy. To the touch, however, I feel certain that they were somewhat board-like, and that the skin of the forehead was also distinctly tight. The patient admitted when I questioned her that she had herself thought that the cheeks were getting hard; she had not, however, experienced any stiffness of the lips or eyelids. She complained very much of the stiffness of her hands, and of her inability to use them in dressing herself, &c. The right upper extremity was, however, more incapacitated than the left, although the marked morphœa changes were in the latter. She could not pronate and supinate well on the right side, and my impression was that she was beginning to suffer from chronic rheumatism in addition to her skin malady. Her mother had, she said, been quite crippled by it. She herself suffered much from pains in the hips, and inability to stand or walk much. This, I think, was rheumatic, and had nothing whatever to do with the morphœa. I ques-

* This, however, is not a unique feature, as I have recorded it in two or three other cases.

tioned her carefully as to whether she had experienced any of Raynaud's phenomena in connection with the sclerodermic changes in her digits. She stated that in early life she had been very liable to have her fingers die and become white, but that they did not do so now; and she did not admit that she suffered particularly from exposure to cold. The fingers were always a little dusky, and always ached more or less. She considered herself in good health, but was very unhappy in the belief that the indurated patches in her skin would pass into cancer. On this point I assured her as well as I could, but not without some misgivings.

No. XIX.—*Patches of Morphœa on the left side of the chest and axillary region in a lady of middle age—Cancer suspected.*

A lady consulted me, who had been sent from the north of England, under the suspicion that she was suffering from cancer of the skin. She was aged 45, had been a widow for eight years, and was apparently in excellent health. She brought with her a very full account of her case. The first symptoms had been noticed in the beginning of September, 1890, when she herself discovered a patch of skin, just in front of the left axilla, which was unduly hard. At a consultation a fortnight later, it was observed that "there were two patches of skin affected, each about the size of a florin. One of these, that first observed by the patient, consisted of a firm, leathery induration, mottled pink and yellow; it lay in front of the upper border of the axilla. Near to it, towards the axilla, could be felt one or two nodules in the subcutaneous tissue. The other patch lay horizontally about three inches nearer the middle line. It also was indurated, but in the centre the skin was smooth, white and glistening, like the old cicatrix of a superficial burn. No cicatrix had, however, existed there before. Between the two patches a subcutaneous thickening could be felt, although there was no external mark. From the outer patch an indefinite tail could be felt passing down towards the mamma. The axilla was free. There was no feeling of pain or discomfort in the affected skin."

The above extracts are the description given me by the gentleman who sent me the patient. His notes gave a very complete account of the patient's progress up to the time of her coming to London, but it is not needful to quote them in full.

I feel no hesitation in regarding this as an example of ivory patch morphœa, and not cancer. It is true that the induration was somewhat unusually great, and that the evidence as regards enlarged lymphatics was certainly suspicious. There was, however, no primary tumour in the breast to explain the occurrence of secondary infiltration of the skin. Next we had the facts that the patches were multiple and that they had all been observed pretty much together; that they had increased somewhat during the first two or three weeks, but had subsequently been stationary. One of them had even almost disappeared. Next we had the peculiar arrangement of the patches in a line like those of zoster, conforming well with the distribution of the intercosto-humeral nerve. Lastly, the condition of the patches themselves seemed tolerably conclusive. They were of that dull white, or yellowish white, ivory tint which is characteristic of this variety of morphœa. They were also bordered by a dull purplish, or in some instances brownish edge, which the patient described as having been in the first instance of a more lilac tint.

As the case was seen for the first time only a few weeks ago, I have of course nothing to say as regards its sequel. In reference to prognosis, it may, I think, be said to be probable that in the course of a few years the patches will melt away. This is the more usual result. That it is not quite invariable, however, is proved by the case which I have just related.

No. XX.—*Acro-Sclerodermia affecting both upper extremities in a young woman—Advanced conditions—No accompanying Morphœa patches.*

Miss Sarah Ann W—— was sent to me by Dr. Hill (then of Campden Hill), in March, 1879. She was 30 years of age, and it was ten years since her fingers had first begun to be affected. They were now in an advanced condition of

acro-sclerodermia, being thin, pale, and hardened. Some ulceration had occurred repeatedly at the finger tips. The conditions are well represented in a drawing which I possess. She had been delicate through life. At the age of 12 she lost the use of her feet for a time, and they became painful. She remembers that she had to be carried up and down stairs. Menstruation was late in beginning (not till 20), and always irregular. When a girl she had a large chronic swelling in the right parotid region. It was incised, but no abscess was ever discovered. Her recollection as to the beginning of her skin disease was that her hands used to swell and become painful, and that cracks would form around the roots of the nails. The changes in her face began about the same time, but were so gradual that no precise date could be assigned to them. Two or three years later she had a severe illness, which was called rheumatism, but before this her face was so much altered that her friends would pass her in the street. About this time she also suffered much from pain in the left side. With the attacks of this pain she would sometimes lose consciousness, and had several times been so ill that her death was expected.

I examined Miss W——'s body and lower extremities, and although there were slight changes in the direction of the hide-bound condition, they were as nothing compared to those of the upper extremities, face and bust. I did not discover any patches of localized morphœa.

On account of the deformity in one of her fingers I amputated it. Her hands were all but disabled.

As far as my notes go this appears to be an example of acro-sclerodermia of an uncomplicated type, and such as might very possibly have been consequent on Raynaud's phenomena. My notes are, however, imperfect, having been taken twelve years ago, before I was aware of the supposed connection between the two maladies, and they are not sufficiently detailed.

The statement as to the absence of localized morphœa must be taken with some reservation. In the case of Mr. H——, who had acro-sclerodermia, the ivory spots on his abdomen had not been discovered until I made him strip and

stand in a good light. In several parallel cases, in which young women were the subjects, this was not done. They were also, it must be remembered, seen at a late stage, when in many instances the evidences of morphœa patches might easily have disappeared. In the case of Mrs. M——, in other respects similar, I did find some non-symmetrical morphœa patches on the trunk.

A point is to be taken note of in this and other cases of acro-sclerodermia, that although the feet did not wholly escape they were very slightly affected. I have never seen any material scleriasis of the feet in these cases, and certainly never witnessed anything approaching to gangrene of a toe. It is a disease of the upper extremities, face and clavicular regions especially.

No. XXI.—*Acro-Sclerodermia in a young woman—Advanced conditions of Atrophy in the hands.*

I possess a second portrait which shows conditions scarcely to be distinguished from those in the preceding case. I have unfortunately mislaid my notes, but I believe they were almost parallel with those just given. The patient was a young woman named Banks.

Both portraits are given in ARCHIVES, vol. ii. p. 40.

No. XXII.—*Right-sided Facial Morphœa beginning at the age of twenty-two — Fifth-nerve muscles and right half of tongue affected.*

Dr. C. W. Crewe, of Worcester, was kind enough to send me a photograph from a case of facial morphœa. It was that of a housemaid, aged 23. The history was that she had first felt twitching sensations in the right side of her face, and that three months later she had noticed that that half of the face looked different to the other and less plump. The shrinking subsequently increased, and when Dr. Crewe had the photograph taken, sixteen months later, it looked decidedly atrophied. Dr. Crewe's notes state that the masseter muscle was small and very hard, the right side of the tongue

atrophied and the right half of the scalp shrunken. A distinct line ran down the middle of the head, forehead, nose, upper lip, and chin. No morphœa patches had been observed on the limbs or trunk.

No. XXIII.—*Unsymmetrical patches of Morphœa in a young girl who was the subject also of slight Xerodermia.*

I saw in March, 1889, a young lady, who was the subject of morphœa in conjunction with general xerodermia. The morphœa affected chiefly her right limbs, but there were some streaks of it on the right side of her cheek also. The face and head were otherwise quite exempt ; but on the left upper arm (intercosto-humeral) and over the left scapula there were three or four brawny patches. She was eleven years of age, and had suffered from the disease for three years. Her mother stated that she first noticed some white patches on the child's stomach, and it was believed that an interval occurred before the others were developed on the arms and legs. This, however, was probably simply an error in observation. The child was not in the least ill, and the conditions had caused her little or no inconvenience. She was the fourth of seven children, and three like herself suffered from xerodermia in a mild form. The nails were not affected either in the hands or feet. I was told that she had had eczema in infancy, and "dysentery" at the age of three. After the latter her mother believed there had been some kidney trouble.

No. XXIV.—*Scleroderma developed very extensively and symmetrically on the scalp, face, neck, trunk, and upper parts of limbs—Hands and feet not affected.*

A very unusual form of morphœa, and one which, in a most instructive way, constitutes a connecting link between the diffuse and localized types, came under my observation in the person of an old gentleman from E——. The following are my notes of his case taken at the time of his first coming

under my observation (March 4, 1891). Mr. B—— is a gentleman of 75, rather stout, and very pale and puffy looking. He tells me that he has enjoyed through life very good health, but that he has been troubled almost from childhood by a tendency to shaking of the hands and head; which at present has assumed the form of a slight degree of paralysis agitans. Respecting the present disease of his skin, he says that in the first instance he noticed that the skin at the back of his neck was becoming stiff. Almost at the same time he found the fronts of his elbows stiff. The conditions which are now present in his groins and on his trunk began not long afterwards, but have increased of late.

The disease commenced about July of last year, 1890. Mr. B—— is very fond of hot baths, and can bear them at 103°, and can stay in half an hour at a time.

The following notes describe the conditions in more detail: The whole scalp is thinned, hard like leather, and adherent to the bones; it is mottled over with brown stains. His eyelids are stiff as if infiltrated with wax, but he can move the eyebrows somewhat, and can wrinkle the forehead. The bridge of the nose is hardened, but not the tip. The fronts of the cheeks, the upper and lower lips and chin are natural; not in the least hardened. The whole of his neck is hardened and streaked with ill-marked tallowy lines. There is hardening of the parts of the cheeks in front of the ears, and of the skin behind the ears and around them; but the ears themselves are not hardened, at any rate not the lobule or the helix. In the concha of each there appears to be some induration. In 1867 or 1868 he had a very bad attack of typhoid fever. The skin of his chest is hard and leathery, and shows many tallowy streaks, patches, and stigmata. The hardening involves the whole of his trunk, but is less marked in the parts surrounding the nipples than elsewhere. On the lower part of the front of the neck the skin is soft and may be easily pinched up into folds, so also on the arms. A mottled tallowy condition extends down the inner aspects of his arms, and comes very nearly to the wrists. The whole of his back is hard, and it is quite impossible to pinch the skin. The skin is crinkly and dry. On different parts of his upper

extremities patches of ill-marked ivory are quite perceptible. The condition ends in the upper parts of his thighs. Thus neither his feet nor his hands are affected.

No. XXV.—*A case in which the conditions of Acro-sclerodermia or diffused Morphœa existed in combination with the localized form—The lower extremities not affected.*

The case of a Mr. H——, who was brought to me by Mr. Joseph White, of Nottingham, is well worthy of our careful study, as illustrating the points which have been under consideration in the preceding cases. I did not at first detect in Mr. H.'s appearance any indications of the disease from which he suffered. He was a brown complexioned man, and looked as though he had been exposed to weather. I was told that during the last year he had failed in appetite and strength, and that once during a short time there had been a trace of sugar in his urine. I was just expostulating that it was a case rather for a physician when he gave me his hand to feel his pulse, and I then found that his fingers, although not in the least shrunken or pale, were stiff and hard like pieces of wood. I was next told that he had already seen a consultant, and that this condition of his fingers had attracted attention and had suggested the commencement of acromegaly. The fingers were certainly a little swollen, but there was no real hypertrophy, the induration of sclerodermia being what was present. I found that although the hands, when at rest, looked brown, as if tanned, that whenever he attempted to bend the fingers they became mottled and tallowy in parts. The nails were flattened, thin, and short; and at the extreme tips of most of his digits there were little puckered scars, which had been left by small spots of gangrene or ulceration. The scleriasis condition extended over his wrists and about half way up his forearms, terminating quite gradually. The skin of the upper arms was white, and could be easily pinched up. Over the clavicles, however, it again became brawny and tight. Here it was speckled all over by ill-marked tallowy spots. On examining his face, although

there was nothing whatever of visible change, excepting a few stigmata which needed looking for, I found that the skin of his cheeks were as hard as board. The hardness began on the sides of the neck and about the ears, and shaded off gradually towards the middle line, his lips and nose not being much involved. He could close his mouth, but the induration of his cheeks was such as to prevent him opening it widely. Mr. H—— having stripped, we found, with great interest, that on the front of his abdomen there were large areas mottled with white lardaceous infiltration. These were most conspicuous between the umbilicus and pubes, and at the epigastrium, the conditions being especially developed near to the middle line. Thus, just above the pubes it looked much as if two outspread hands had been placed close together in the middle line, and over the whole area so marked out there were little spots of white exactly like lard, which, although none of them bigger than a fourpenny bit, were so closely placed as to be almost confluent. A similar condition existed at his epigastrium. The skin of these areas, although not thickened, was hard and brawny.

The conditions in Mr. H—— ended entirely with the trunk. I carefully examined his feet and lower extremities, and could not find any trace of disease. Nor were there any evidences of scleremic changes on his back. These changes began only on the sides of the abdomen and increased gradually as the middle line was approached. Thus it will be seen that on these parts, as well as on the upper extremities, they were placed distally in reference to the supply of blood and nerve distribution. An apparent exception to this occurred of course on the face, where the sides of the cheeks were much indurated, and the lips and nose almost wholly escaped. If, however, we call to mind the complexity of the vascular and nervous supply to the face, and that much of it is from near the middle line and not from the sides, we shall see that there is even here no real exception to what is suggested. On all parts the conditions were accurately symmetrical. It now remains to examine the evidence as regards the onset of the disease, and to see whether there is any reason to believe that they had connection with tendency to Raynaud's phenomena.

Mr. H—— told us, in reference to this, that his fingers would now die away most easily, becoming, as he said, yellow and tallowy, or like yellow wax. He could not put them into cold water or bear any exposure to cold wind. He assured us, however, that this susceptibility had only come on him recently, that is within the last year. In early life he had had a good circulation, and had never suffered from chilblains or cold extremities. His nails, he said, had always been thin and brittle, but gave him no trouble unless he chanced to catch them. His present illness had commenced about a year ago, and the first symptom which he noticed was that if he walked in the wind his lips felt numb and stiff. Next he found that his hands were affected in a similar manner, and after a while he observed that his whole face in the wind had a feeling as if being touched lightly with a feather. He had never had any fever or acute illness. He had lived a temperate life, and seemed to think that he had scarcely ever consulted a doctor until his present ailment. For the latter he had been under Dr. White's care since the beginning of the November preceding his visit to me in May.

No. XXVI.

I have hitherto devoted my Report exclusively to cases occurring under my own observation. I find recorded, however, by Dr. A. B. Arnold, of Baltimore, U.S.A., in 1869, three cases which are of considerable interest, and seem worthy of citation in abstract:—

In one a clothier of 52, who was much out of tone and had been exposed to cold, became the subject of hardness of the hands and arms. The fingers and hands are described as of "stony hardness." The condition persisted five years later. No mention is made of the state of his face.

In the second a servant girl of 21 "caught cold," and had slight swelling of her neck and face, and pains all over. Her whole face, neck, both arms and hands, and the chest and back became swollen, and felt as hard as leather. They were cooler than the rest of the body. Subsequently a slight degree of induration extended over the trunk and lower extremities. She could never find the weather too warm, although exposure to sun brought out a lichen eruption. Perspiration was arrested for a year or more, but ultimately returned profusely without apparent cause. When this occurred the hardness of the skin began to subside, and a condition approaching cure resulted.

In Dr. Arnold's third case only one hand was affected. The skin is described as feeling as hard as wood. It was attributed to the removal of a wart by a heated needle. If this be a true case of acro-sclerodermia, it is the only one on record with which I am acquainted in which the conditions were not symmetrical.

No. XXVII.—*Two attacks of Morphœa on the neck and trunk with a three years' interval—Disappearance of the patches—Cancer of the breast.*

In June, 1879, Mr. John Birkett was good enough to send for my inspection a woman named Mrs. L——, who had long been the subject of morphœa, and in whom carcinoma of the breast had supervened. Her case had been published by Dr. Hilton Fagge. The morphœa had affected the side of her body three years before it affected the side of her neck, the dates being fourteen years ago and eleven years ago respectively. In each case it began as a group of ivory patches surrounded by a lilac halo.

There did not appear to be any direct connection between the cancer of the breast and the morphœa. Mr. Birkett had already operated on the breast three times. I believe that it was the ordinary form of scirrhus. The morphœa patches had already, when I saw the patient, almost wholly disappeared.

No. XXVIII.—*Hemifacial Morphœa followed by very severe Atrophy—Shrinking of the Eye, Salivary Glands and Muscles of Mastication—Hemiatrophy of the Tongue and Palate—Morphœa Patches in the opposite upper extremities.*

Dr. Hughlings-Jackson, to whom I have been indebted for several instructive examples of morphœa, was good enough to send to me, for examination, a young woman who was under his care in the Hospital for Epilepsy. Her name was Agnes B——, and she was 18 years of age. Her case is very valuable to me in support of my assertion that the so-called hemiatrophy of the face is nothing more than the arrest of growth following an attack of fifth-nerve morphœa which has occurred in early life. The coincidence of morphœa conditions on the limbs was in this instance, as in several others, a conclusive proof as to the real nature of the disease. The case is, apart from this, of great value as an example of the implication of the muscles and glands in the morphœa process.

The atrophy of the face had indeed proceeded to a most remarkable extent. In using the term fifth-nerve morphœa, I mean only that the conditions were distributed in the territory of that nerve, not that either its sensory or motor branches were the real seat of the changes. The latter are in all probability due to an affection of the vaso-motor twigs, which travel in company with the sensory ones.

It was the left half of the face which was affected. A depressed line ran up the middle of the chin and forehead, being less appreciable, though visible, on the nose. The poor girl was so much disfigured that she was even unwilling to have her face looked at, and would not listen to the suggestion of a photograph. The following are some of the particulars which I noted while she was before me. The eyeball was shrunken and the orbit destitute of fat. I could find no trace of lacrymal gland, nor could I, although the face was very thin, find any trace of the parotid. About the condition of the submaxillary salivary gland it was not possible to be certain. The line of the alveolus in the upper jaw showed scarcely any curve, and that of the lower was much less than normal. The teeth were of good form, but crowded and irregular. The left eyebrow was very thin, and the hair on the left half of the scalp was thin and weak. The angle of the lower jaw was lost, the bone slanting down from the articulation to the symphysis. I could not detect either temporal or masseter muscle. The left half of the tongue was shrunken; the left half of the palate also. On the right half of the upper lip there was a good crop of downy hair, but on the left it was much less abundant. On the back of the right forearm over the upper part of the ulna there was a broad streak of depression, as if from absence of subcutaneous fat. The middle and ring fingers of the same hand were very slender and much shortened, the middle being the shortest. There was a streak of skin over the back of the hand and middle of the fingers which was much thinned, so that the tendons could be easily seen; and a similar condition existed in the corresponding part of the palm. No appreciable defect of sensation in the affected parts could be detected. Amongst the points worthy of especial note in this case are the atrophic shrinking of the

PLATE LXXXIX.

HEMIFACIAL ATROPHY AFTER MORPHŒA.

Two portraits to illustrate the peculiar appearance of hemifacial atrophy. One of them is copied from the photograph of a German, who some years ago showed himself at several of our medical societies. The other is from a case published by Dr. W. H. Hylton Jessop, in the St. Bartholomew's Hospital Reports. The two portraits show precisely similar conditions. In each the left half of the face is much smaller than the right, and thus the most peculiar twisting of the features is produced. The bones have been imperfectly developed, and the soft parts are shrivelled. In each instance the whole region of the fifth nerve was affected, and an abrupt line of demarcation passed vertically down the middle of the face, from forehead to chin. In both patients there was the history of a sudden attack of hemifacial morphœa in early life. In the case of the girl it began at the age of five, and she was twelve when the photograph was taken.

These portraits may be held to illustrate well the condition shown as hemiahophy of the face, which is always a consequence of fifth-nerve morphœa in early life. Conditions similar in kind, though varying in degree, were present in cases Nos. xvii., xxii., xxvii. of my report on Sclerodermia, &c. Mr. Jessop's report gives a good portrait of another case. There is one also in Brün's 'Atlas of Surgery,' and a fifth in the New Sydenham Society's 'Atlas of Diseases of the Skin.'

Fig 1

Fig 2

West Newman, lith.

eye, and of the lacrymal and salivary glands; also the conclusive proof of the arrest of growth which the disease induces, as shown in the shortness of the middle finger. Lastly we have the circumstance that while the growth of the hair had been much interfered with, that of the teeth had not.

No. XXIX.—*Morphœa, in patches, on the face and on one upper and one lower extremity.*

The following are the particulars of a young lady from Montreal, whom I first saw in November, 1882. She was then 15 years of age, and the disease had commenced when she was six. The first patch was observed on the front of the left shin, and was attributed, though probably erroneously, to a blow from a fall. The next patch came on the right elbow, and soon afterwards a patch appeared under her right chin. Another patch formed on her left arm, and she was then taken to Philadelphia, where she saw Dr. Duhring, who diagnosed the malady. Her mother thought that the patches had increased in size subsequent to their first appearance; but on my pressing her to describe what had occurred, it seemed probable that it had been chiefly a process of coalescence of smaller spots with the large ones. Dr. Graham, of Toronto, who sent her to me, wrote me that she had been under his care for some years, and that he was decidedly of opinion that the condition of the patches was slowly improving. I saw this patient again about four months later (January, 1883). The conditions were all distinctly retrograde; there were stains of a very dark tint down the left arm from the axilla downwards, constituting superficial scars. On the left shin the skin adhered to the bone, and presented a sort of dusky brown scar. There was a similar scar just in front of the knee and a small cluster on the right arm. Miss H——'s mother described the patches as having originally been all of them white and ivory-like, and expressed herself strongly in opposition to my suggestion that they all came at the same time. She thought that there had been intervals of several months; but as the earliest stages had been difficult of recognition, there was of course room for fallacy on this point.

No. XXX.—*Additional Notes four years after those given at page* 229, *Vol. II.*

I saw Master M—— again four years later (June 9, 1891). His condition in all the affected parts had decidedly improved. The ulcerations on the knee and ankle were healed, and the skin was softer. He could, however, only just manage by careful padding to keep the scars sound. He could use the limb a little in walking, although it was much atrophied and the knee somewhat bent. The girth of the calf was only eight inches, that of the other side being eleven and a half. He could use the calf-muscle a little.

Amongst the features which were noteworthy were, first, the extreme whiteness of the patches on the abdomen. These two patches, each about the size of the half of an adult palm, nearly touched each other in the middle line just below the navel. They were abruptly margined, and of an almost snow-white aspect. The skin surrounding them was more or less dusky and brown, but not hard. There were a few small ivory-like dots near to the margins of these large and very conspicuous patches. The patches themselves were a little thickened in their centres, but not much. I do not know that I ever saw in any other case the white ivory patch persist so long with so little change.

The patches in other parts of the surface, that behind left shoulder, for instance, were much in their former condition.

A new feature, which had not been noticed before, was the presence in front of both shoulders of long, radiating streaks of spontaneous scar. Each streak was about four inches long, and they were arranged almost symmetrically. The streaks were about a quarter of an inch broad and slightly red. They were easily detected by the finger. I could find no cause for these scars, unless they had resulted in some way from the use of his crutches. He had not used a crutch on the left side for two years.

No case could prove better than this that the disease exercises no injurious influence on the general health. The lad is developed beyond his years, florid, strong, and muscular. He has not recently ailed anything.

(*To be continued.*)

ON CANCER AND MALIGNANT PROCESSES IN GENERAL.

(*Continued from Vol. II., page* 356.)

On Primary Multiplicity of Malignant Processes.

The multiplicity of malignant growths when secondary is of course a matter of every-day experience, and needs no discussion. There are cases, however, which have as yet received but little notice in which there seems good reason to believe that primary, and wholly independent, lesions are multiple. In some of these the form of cancer is the same in the several growths, but in a few it is different. I have seen scirrhus of the female breast several times coincident with a rodent ulcer on the face. In one case, a patient, who had for long suffered from a very peculiar form of cancer of the nipple (Paget's Disease), which had spread over the whole surface of the mammary region, had also an independent malignant ulcer above the left eyebrow (rodent). A gentleman who had for many years been the subject of a cancerous ulceration on the skin of the abdomen, which was exceedingly slow in progress (possibly rodent), became the subject of cancer of the pylorus, and soon died.

I have in five cases at least seen cancer of the tongue develop simultaneously at two or more quite distinct and more or less distant spots. By far the best marked examples of primary multiplicity occur, however, in cases of rodent, and especially in elderly persons with thin skins. In such I have several times seen two or more patches of declared rodent growth on distant parts of the face, and with them several other little persisting papules or rough spots, concerning which it was impossible to say whether they had attained to the dignity of rodent or not. The patient will

sometimes ask attention to spot after spot, and say: "This is just the way that the other began." In such cases we may study the earliest stages of the disease, and may, I think, easily convince ourselves that a condition indistinguishable from chronic inflammation is the usual antecedent.

Cases of primary multiplicity may perhaps usually be claimed as illustrating two laws, and these often simultaneously. The first is that of the power of senility as predisposing, and the second that of local inflammation as an exciting cause. When epithelial cancer is multiple in the tongue, it always is so in an organ which has presented several separate patches of long persisting sclerosis, or of tendency to papillary growth. The cases of multiple rodent of the face are almost invariably in old, often in very old persons. More than once under such circumstances I have ventured, on account of the great age of the patient, to advise that none of the sores should be treated by radical methods. It seemed as if the patient's skin had a tendency to grow rodent over the whole face and neck, and that if one were excised we should not know where to stop, whilst very likely none of the growths would shorten life or entail material inconvenience.

In near alliance with cases of primary multiplicity are those in which after an operation the disease returns under circumstances which make it probable that the second growth is independent of the first. More than once after removal of part of the tongue for cancer I have seen another growth develop on the other side of the organ at a distance from the scar, and seemingly without any connection with the first. I once removed the tongue for cancer and the parts remained ever afterwards perfectly sound. Nor did any gland disease follow. About eighteen months after the operation, however, symptoms of obstruction in the æsophagus set in, and the patient ultimately died, with a large ulcerated epithelial cancer in that position. The second growth was at a considerable distance from the tongue, and the latter and the intervening parts remained quite sound. A lady, one of whose eyes I had excised for melanotic sarcoma, lived in good health for ten years, and then died of epithelial carcinoma of the uterus. I

much doubt whether there was any infective connection between the two.

Some General Aphorisms on Cancer.

The opinions expressed in the following sentences have most of them been already published. At the risk, however, of some repetition, it seems worth while to bring them into juxtaposition and give them an increased definiteness.

1. That the various different characters assumed by malignant growths are usually due to the special tissue attacked and the proclivities of the individual, and not to any essential differences in the nature of the disease.

2. That it would be both more correct and more convenient to speak of "a cancerous action" "a cancerous process," "a cancerous tendency," or "a cancerous mode of growth," and thus recognize an aberration of ordinary nutrition, than by the use of such words as Cancer, Sarcoma and the like to seem to imply morbid entity.

3. Cancerous action is not due to the introduction from without of any elements foreign to the organism, nor to the development in any occult way *de novo* of any tissue which did not previously exist, but simply to a modification of the processes of normal growth and nutrition.

4. Anything which disturbs the forces of nutrition may give proclivity to cancerous processes or methods of growth.

5. It follows from these considerations that as the tissues of the body present an almost infinite variety of modifications in structure and function, and as there are great differences in the nutritional state of different individuals, and of the same individual at different ages, so we ought to expect very great variety in the forms assumed by cancerous action.

6. As a matter of fact, we do meet with malignant action displaying itself under such an infinite variety of clinical forms as to almost defy classification.

7. All attempts to group or classify malignant affections should be based upon recognition of these three causal factors—the tissue first taking on the action, the peculiarities

of the individual suffering, and the period of life to which he has attained.

8. Based upon these general principles as to the nature of cancerous action, and following directly from them, we have, what may I think be suitably named the anticipation-treatment of cancer.

9. Recognizing the essential connection between chronic inflammation and cancer, the anticipation-treatment directs itself to the sedulous attempt to cure all local inflammations, especially in those by constitution or age predisposed to cancerous action. Should attempts at cure by other means fail, its advocates urge that the measures suitable for cancer itself ought to be promptly adopted; that is, the suspected part should be destroyed or excised.

10. The advocates of anticipation-treatment hold that the removal of a portion of the tongue or lip, excision of the breast, or even an amputation (if done when not absolutely necessary), are matters but of little consequence in comparison with the neglect to remove a developing cancer.

11. They reject as often misleading the evidence afforded by the microscope of portions cut away for examination. Their assertion is that the initial stages of cancer are often unattended by any characteristic modes of growth.

12. It is probable in a high degree that the children of parents the subjects of cancer at the date of conception may, in addition to ordinary inheritance of tissues prone to the disease, sometimes receives cell elements which have special and definite proclivities to it.

13. The nearer to the period of cancer-development in a parent a child is conceived, the greater is probably its danger as regards inheritance.

14. From the last proposition it follows, almost as a necessary sequence, that inasmuch as senile periods are *ipso facto* more prone to cancer, the offspring of senile parents are likely in general to inherit proclivity in a stronger degree than others.

15. Not only does improved longevity in a race or district tend in itself to increase the mortality from cancer by augmenting the number of those who are old, and therefore

liable; but by increasing the number of senile parents it may increase the inherited tendency also.

16. It is clear from what has just been advanced that advanced civilization is likely in a variety of directions to increase the ratio of mortality from cancer. 1st. It increases the proportion of those who live to adult or senile periods of life. 2nd. By increasing the number of the aged, it increases that of those who become parents after middle life. 3rd. It is generally attended by delayal of marriage and increase of the average age of parents.

17. If all or any of the above suggestions be based on fact, it is obvious that before attempting to discuss questions of diet or of locality in reference to the prevalence of cancer, we must eliminate the disturbing effect of simple prolongation of the average duration of life. This it is for the present quite impossible to estimate, and I may venture to avow a conviction that there is for the present no reason whatever to believe that either food or climate have anything to do with the production of cancer.

Cancer of Tongue at early age—Family history.

Mr. W——, aged 39, of very dark complexion. His mother died of cancer of stomach. At Hastings, eight years ago, a sore appeared on the tongue. He consulted a doctor, and had a tooth taken out, and got well for a time. It is possible that he had syphilis in early life, and he has been a heavy smoker.

Now there is a large excavation in the tongue on right side, with hard bossy edges, and fixation of tongue to floor of mouth. There are enlarged hard glands under the jaw and under sterno-mastoid.

It is too late to operate. There are no patches on surface of tongue.

Cancer of the Tongue at early age—Hereditary history.

A Welsh clergyman, of about 55, came to me about his son, who was a man of 32. He told me that he was suffering from a very sore tongue, which he was sorry to say was due

to the venereal disease, but which had resisted all treatment. I found on the young man's tongue a large infiltrated mass of epithelial cancer, and there were enlarged glands in the floor of his mouth and on both sides of his neck. It was too far advanced to admit of any operation. There was no doubt that he had syphilis, but he was since married and had three healthy children. He had been a heavy smoker. He had during the last year, on account of the state of his tongue, taken iodide of potassium and mercurials rather freely. The point in his case of chief interest was, that his mother was in a late stage of cancer of the uterus. It seemed probable that mother and son would die of the same malady about the same time. Thus in the son's case we had a partnership of causation. First, derivation from his mother of tissues having a tendency to take on cancerous modes of growth. Second, the occurrence of syphilis with its attendant inflammation of mucous membranes in the mouth. Third, the long continued use of mercurials, causing recurring congestion of the same parts; and lastly, the irritating influence of tobacco smoke.

I had observed that the young man did not in the least resemble his father, being of very dark complexion and rather stout, while his father was fair and thin. On inquiry of his father, I learnt that the son very closely resembled his mother, and further, that there had been cancer previously in his mother's family.

Painful concomitants of death from Rodent Cancer.

It is scarcely possible to exaggerate the horrors of a death from rodent cancer of the face. By slow degrees the nose, cheeks, and facial bones are all eaten away; and the patient becomes an object of disgust to all about him. He may lose both his eyes, and may become quite unable to make himself understood in speech; yet he lingers on from year to year, and has to die simply from a failure of strength which is to be brought about with extreme slowness. I have seen several such cases in which the patient and all his friends were longing for his release several years before it came. In one such, a gentleman of the highest intelligence, and of intellectual

tastes in various directions, lost in succession his speech, his sight, his smell, and his hearing. He was able to swallow only fluids or solids which had been pounded. Yet in this lamentable condition he continued to live on for several years. The whole duration of his disease from the beginning was twenty years, and being a man of remarkable vigour of constitution, he lived in spite of it till he was 77. Such being the ultimate realization of this malady, it is impossible to lay too great a stress upon the necessity for early and efficient treatment. It is in the earliest stage only that measures can be adopted which will be radical and efficient. Yet, but too often, whilst the growth is small and apparently insignificant it is either wholly neglected, or is attacked only by imperfect operations.

Epithelial Cancer of the Prolabium in association with a general eruption of erythematous patches on the skin in an old man.

An old gentleman who had lived very freely was sent to me on account of the state of his lip, which was believed to be cancerous. He brought with him a note from his surgeon, stating that he had suffered from psoriasis of the prolabium, which was thought to be now passing into cancer (Dr. Lucey, of Enfield). I found the whole lower prolabium inflamed with patches of ulceration, and at least three of these on the right side were taking on papillary growth. Their appearance was such that I could feel little doubt that, if not already cancerous, they were on the point of becoming so. Dr. Lucey's note reported that they were increasing, and his opinion as to their nature entirely coincided with my own.

The eruption which I have called "psoriasis" was peculiar. It was of quite recent development, not having been present for more than a year. It consisted of dry red erythematous patches without any scale accumulation. These were present symmetrically, or nearly so, and affected the backs of the hands, the cheeks, sides of neck, and the ears. On the ears in particular the pendulous lobule on each side was the site of diffuse dusky erythema, with some swelling. The conditions were almost as much like those of erythematous lupus as psoriasis. The old man had for many years had a

patch of what had been called eczema, which had now got quite well. He stated that the patches had never been moist. He was a stout, florid man. He had at one time had albumen in his urine, and his arterial tension was high. I advised excision, and this was done by Dr. Lucey (October 10, 1889). A portrait of the man is preserved in the College of Surgeons collection.

The portion of lip removed by Dr. Lucey was sent to me, and was examined by the microscope and found to be epithelial cancer. The wound, as Dr. Lucey informed me, healed, and under treatment much of the inflammatory condition of the surrounding skin passed away. The old gentleman died, however, of heart disease, two months after the operation (January 1, 1890), so that no opportunity was afforded for testing the tendency to recurrence. A supicious nodule had shown itself near the scar just before his death.

My chief interest in the publication of this case rests in the fact that it seems to illustrate the ease with which in aged persons inflammation may slide into cancer. On the inflamed lip there were two or three separate spots which exhibited the features of commencing malignant growth. On the face also one at least of the erythematous patches showed tendencies in this direction, yet there could be no doubt that the eruption was in the first instance of an inflammatory nature only.

Induration about Sterno-Mastoid of doubtful nature—Death.

The following case is one in which the difficulty in diagnosis was between chronic inflammation of a very unusual type and a cancerous process. The part affected was the sterno-mastoid muscle and its surroundings. Some years ago I ventured to draw attention to the clinically peculiar group of cases in which a large, rapidly-growing tumour, nodular on its exterior and much resembling in form and density a potato, developes under the upper part of the sterno-mastoid. Some interesting examples of this malady have since been recorded by Mr. Mayo Robson, of Leeds, and others. The growths are probably of a lympho-sarcomatous nature. The case which I have now to describe is of a quite different character, and,

although affecting the sterno-mastoid region, I am not able to give any proof that the growth really began in glands. The peculiarity of the condition consisted in the extreme hardness of the new formation, feeling almost like a mass of cast-iron, and in its being apparently shaped by the muscle itself, as if developed within its sheath.

The patient to whom the above remarks apply was a gentleman of about sixty. He was still florid, and in fair health, but his appetite was bad, and he was losing flesh. His paternal grandfather had died in old age of some form of malignant disease of the face, possibly rodent ulcer. He was stated to have had "his mouth quite eaten away," and to have died of starvation after several years' illness. This was the only instance of malignant disease known in the family. Our patient's ailments had commenced a little more than two months before I saw him, by what he thought was a stiff neck; he thought he had taken cold, and the left side of his neck began gradually to swell. Both he and his wife, who were intelligent and observant persons, were clear in their statements, in reply to my questions, that nothing like swollen glands or "kernels" had ever been noticed. The swelling had been smooth from the beginning, and had always been thought to be inflammatory. They had been assured (and very rightly so) by a surgeon whom they had consulted a few days before coming to me that there was not the slightest appearance of cancer about it. (I first saw him on Sept. 12th).

I found the neck on the left side, especially in its lower two-thirds, evenly swollen, so that all lines of contour were concealed. The middle of the swelling was of a dusky purple tint, as if overlying a diffuse abscess, and there was a small opening from which a little serous pus escaped. It had been incised a few days before, when a small quantity of matter was let out. There were one or two places near to the incision in which softening appeared to have taken place. The bulk of the mass, however, did not present the slightest suspicion of fluctuation, and was literally as hard as iron. Its boundaries could be very easily traced, there being no tendency to general implication of the cellular tissue. It appeared to involve and to surround the lower two-thirds of the sterno-mastoid,

following downwards its sternal and clavicular attachments, and concealing them and the bones in a mass of dense, smooth induration. The hardness was far greater than what is usually meant by the term brawny. On passing the finger under the inner side of the muscle I found that it pushed the trachea somewhat over to the opposite side. Here again I could detect no trace of enlarged glands, or of lumpy outgrowth. In the upper part the induration gradually diminished, and the mastoid attachment of the muscle was not implicated. He could move his head from side to side, and it gave him very little pain to handle the swelling. He had travelled up from Stroud, in Gloucestershire, on the morning that I saw him, and was returning the same day. I found nothing which in the least tempted me to make an incision, and my diagnosis inclined rather to that of a malignant infiltration.*

Mr. M—— came up to London a second time on October 14th. My notes taken then state that the swelling had broken in one place, and threatened to do so in another. It was still as hard as stone, and there were no enlarged glands to be found on this side of the neck. Under the opposite sterno-cleido there was a fleshy-feeling gland as big as a half-chestnut, and some smaller ones in both axillæ. His tongue was red, and he had entire loss of appetite. He had no cough, and, on again inquiring, I could obtain no history of

* The following extracts from a letter written to me by Dr. Rattray, of Frome, furnish some additional particulars which are valuable:—"Mr. M—— came under my notice only a few weeks ago, and of course such an unusual case excites much interest. We have had various opinions—some diffident, some most confident—I may say all negativing the malignant nature of the growth. Lymphadenoma—Exudation in the cellular tissue—Enchondroma, springing from the intervertebral cartilages—are samples of the diagnoses that have been formed.

"The cellular school were nearly triumphant about ten days ago, when the mass seemed to soften, but the suppuration did not amount to much, and it has now assumed its old state of induration. I examined Mr. M—— again this morning, and my own opinion is that the growth is rapidly increasing. I did not observe the dulness beneath the clavicle till to-day. It extends downwards to the second rib. Behind the manubrium sterni the dulness is well marked. Breath sounds absent above, tubular below. Vocal resonance at the apex of the left lung quite inaudible.

phthisis in his family. He said that he had lost thirty-three pounds in the last three weeks.

After the last date I did not myself see Mr. M—— again. Mr. Cockey, of Frome, who attended him, was, however, kind enough to keep me informed as to his progress, and I give below some extracts from his letters.* He died Feb. 5th, five months after the commencement of the disease.

Papillary growths between the shoulders.

It would appear that between the shoulders is the part most liable to develop papillary growths. Mrs. F——, a lady of about 36, in whose family no particular tendencies either to cancer or warts were known to exist, consulted me solely on account of a crop of these growths between her shoulders. There were perhaps twenty of them, and they were scattered about between the scapulæ. They were very small, but were made conspicuous by having become pigmented. The colour was a leaden tint. She had a few which as yet were not pigmented, and one or two minute nævi and a few little moles. These "black spots," as she called them, had been present, she felt sure, for only a year. Formerly she had been able to wear low dresses, but now she could not. The growths were exactly like those in Mr. L——, only they were, compared with his, of microscopic size.

Miss McL——, a lady aged fifty-five, consulted me on account of a large crop of papillary growths on her chest, neck, and back. She had been aware of their presence for several years, and they were steadily increasing. On the neck they were innumerable, but very small and pedunculated. On the shoulders they were so numerous as to be almost confluent, but here they were low and flat. On the shoulders they were discoloured by dirt, although she was a person of most scru-

* On December 6th Mr. Cockey wrote that Mr. M—— was losing flesh and strength, and that points of suppuration continued to form.

On December 25th the report was of further failure of strength and continued increase of swelling and pain. Morphia injections were needed frequently.

Death took place on February 5th from exhaustion. Dr. Cockey's note states the disease had extended each way and discharged a quantity of pus. He had swallowed no solids for some months, and was reduced almost to a skeleton. Unfortunately no post-mortem could be obtained.

pulous cleanliness, and some of them were, I think, more or less pigmented. The history of the association of these papillary growths with family tendency to cancer was very marked in this lady's case. Her father had had a growth excised from his shoulder, and a paternal uncle was suffering at the time she consulted me from an ulcer on his temple, probably rodent. Her maternal grandfather had died from cancer of the throat, and a maternal aunt from cancer of the breast.

About the same time that I saw the patient whose case is the subject of the preceding note, I was consulted by a member of our own profession, on account of precisely similar conditions. His shoulders were literally covered with low papillary growths. He was about fifty-five years of age, and in good health. I am speaking from memory only, but I believe that the history of malignant disease in his family was also definite.

I have seen within the last fortnight two other very remarkable examples of this affection (in consultation with the same surgeon). In the middle of September, a Welsh clergyman of about seventy was brought to me by Dr. Aveling of Clapton, on account of a bleeding growth on his palate. The growth was so small that several attacks of free hæmorrhage had occurred (at his home in Wales) before the source of it was discovered. When Mr. L—— was brought to me some months later the growth was easily seen, and was about the size of the tip of the little finger. It presented a papillary surface and had a little hole in the middle, from which, when the probe was used, free bleeding immediately occurred. I advised immediate excision. When we had our patient undressed on the operating-table, I found that his chest and back were covered with papillary growths. They varied much in size, some being not larger than split-peas and others as large as sixpences; many of them were almost black. They were arranged, as usual, down the middle of the back and about the root of the neck and middle of the chest. None of them had ulcerated or shown any tendency to malignant developments.

The growth which was excised from the palate was, I have no doubt, originally of the same nature as those on the skin, that is, a senile papilloma. I have equally little doubt that it had taken on malignant action. It was, by accident, thrown away after the operation and no microscopic examination made.

Mr. Aveling consulted me about a fortnight later in the case of a gentleman of sixty-six, who had two large abscesses in the cellular tissue of his back. He was apparently the subject of senile scrofula. For our present purpose, however, his case is of interest as an example of senile papillomata. His back was covered with them, and many of them were of considerable size and quite black (from dirt). He had very few on his chest and at the root of the neck; and those which were present in these regions were of very small size, smooth on their surface and pale in colour. In both this case and the preceding, the date of the commencement of the papillomata was not known, for very little attention had been given to them; they had, however, certainly been present for many years. It may be noted, although probably not of any bearing on the tendency to papilloma, that the latter patient was the subject of congenital xerodermia in a slight degree.

DOCTRINAL PATHOLOGY.

(*Continued from Vol. II. page* 353.)

In my Bradshaw Lecture, 1887, I ventured to hazard the opinion that osteitis deformans ought to rank as an infective form of chronic osteitis, and that it usually begins in one bone and has its origin from contusions. It appeared to me that it is for the osseous system what certain forms of infective dermatitis are for the skin. I allude more especially to those which, beginning as a chronic eczema or as a livid blue patch much resembling psoriasis, end in the course of years as granuloma fungoides, or a generalized sarcoma cutis. Sir James Paget has collected numerous items of evidence which support the belief that osteitis deformans, though not in the majority of cases a malignant disease, involves a very definite risk that it may end in cancer. Since the lecture to which I have alluded was given, I have seen several cases favouring the belief that it begins from injury, and that it may sometimes remain for many years restricted to the bone injured. One of the most marked of these has come under my observation quite recently. The patient, a gentleman of about fifty, showed me his left leg, with the tibia much thickened in all parts and bowed forwards—a very type of the osteitis deformans condition. He said that it had been gradually coming on for nearly ten years, and that he felt sure that it was caused by the repeated contusions to which this one shin, and it only, was frequently exposed in his avocations. His left clavicle had more recently also become bowed forwards and thickened. He did not himself think that any other bones were affected, but on examination I felt sure that his left femur was thickened too; and his trunk was bent forward so as to cause a characteristic fold under the borders of his ribs.

He would not admit that he had lost stature, nor had he noticed any enlargement of his head.

There is a syphilitic form of almost every conceivable type of inflammatory disease. Name any malady which is due to inflammation and not to parasiticism, and you may find its syphilitic simular. In some cases the simular is wholly syphilitic, and is easily curable by specifics; but in others syphilis takes only a share. and remedies will not act so definitely.

Speaking generally, I think we may safely assign the relative shares of gout and rheumatism, in any given case, by inquiry as to the patient's susceptibilities respectively to the influence of diet and of weather. Without doubt, gout and rheumatism are often associated, and produce mixed results. They work in partnership almost as often as singly, or rather perhaps it ought to be said that gout rarely fails to take in rheumatism as a partner. If a person is morbidly sensitive to damp and cold, and if his susceptibility is shown by the development of pains in his joints and fascia, &c., he is rheumatic; if, on the other hand, he is sensitive to food, and if certain articles of diet produce joint-pains, &c., then he is gouty. Let me repeat that it is exceptional for a patient to be gouty without being rheumatic also, and hence many of the discrepancies in opinion as to the kind of diet suitable for gout. That which does good for the rheumatic element in the case is often just the opposite to what is desirable for the gouty part; and if the two be not carefully distinguished, the physician and patient may both believe that they are curing gout when really it is the rheumatism which is being bettered. Sometimes, though much less frequently, the reverse may be the case.

The eye affords us very interesting opportunities for the study of rheumatic and gouty inflammations, as well isolated as combined. Whilst, however, we have several different types of inflammatory affections of the eye which are peculiar to gout, sometimes inherited, sometimes acquired, we have very few, if any, which are the exclusive appanage of rheumatism.

I have for many years been in the habit of forbidding fruit to all patients who suffer from tendency to gout. In every instance in which a total abstainer of long standing has come under my care for any affection in relation with gout, I have found on inquiry that he has been a liberal fruit-eater. Some very remarkable instances of this fact have come under my observation. It has, of course, long been well known that the deleterious principles in beer and wine are not the alcohol itself, but its combinations with sugar, glucose, &c., which these fluids contain. Fruits are by no means all alike, and some seem to be far more deleterious than others. If I were to attempt to develop any rules on this subject, I would say that cooked fruits, especially if eaten hot with added sugar, are the most injurious of all. I suspect that the addition of cane to grape-sugar adds much to the risk of disagreement. Fruit eaten raw and without the addition of sugar appears to be comparatively safe, especially so if taken in the garden and without other food. It is the addition of fruit juices and sugar (both grape and cane), to a hearty meal with which alcohol has been taken that is particularly dangerous. Our instincts and dietetic tastes have already given rules in this direction. Few wine-drinkers take fruit or sweets to any extent. Those who abstain from alcohol usually experience a craving for sugar and sweet fruits. Erasmus Darwin was an instance in point. He was a total abstainer from all alcoholic fluids, but was accustomed to eat very largely indeed of fruit, especially of preserves made with sugar. His patients used to provide dishes of sweetened fruits ready for him at his visits. Children who have not yet become used to alcoholic beverages are almost invariably fond of sugar and fruit. As the young man learns to drink beer his taste for sweets almost always declines. Yet many adults, and even some elderly persons, who are abstainers, retain the "sweet-tooth" through life. In this general instinct we have doubtless a valuable guide to the establishment of a dietetic law that alcohol and fruit sugar ought never to be taken together. We may, I feel sure, go even further than that, and say that the children of those who in former generations have established a gouty constitu-

tion may, although themselves water-drinkers, excite active gout by the use of fruit and sugar.

It is essential, in order to obtain a clear idea of the real nature of the various affections to which we give special names as diseases of the skin, that we should take into consideration congenital peculiarities in the structure and endowments of the complex organ which is concerned. As a matter of fact, the human skin is far from being the same in all individuals, although it may appear to be in a state of perfect health. Nor is the circumstance that at the time of birth the infant may appear to have a soft and healthy integument any proof that there do not lie hid in its structure peculiarities which will entail in the future, as a matter of necessary sequence, very serious developments of disease. Nor is it to the skin alone that these remarks apply. Every tissue in the body is probably characterized at birth by intrinsic peculiarities, in connection with which it will bear the wear and tear of life with more or less of impunity. The subjects of retinitis pigmentosa are not born with any obvious peculiarity in the eye, but under the influence of use of the organ, and probably in connection with its exposure to light, certain degenerations ensue which demonstrate that the vital endowments of the retina were not those of ordinary health. Most striking and conclusive demonstrations of this fact occur when we see several individuals of the same family becoming in turn the subjects of precisely the same local changes. The study of congenital proclivities is indeed a very wide one in all departments of pathology, and it is one which ought to be undertaken as a preliminary to the investigation of other causes to which we but too often give almost exclusive regard. Many of the diseases which have received special names, and which we are accustomed to speak of much as if they implied the introduction of some new element into the organism,—as if they were in themselves entities,—are, if we could see them clearly, nothing more than the inevitable results of congenital peculiarity of organization.

It may be worth while, perhaps, in connection with what

has been suggested in the preceding paragraphs, to attempt an enumeration of some of the principal congenital peculiarities which we may plausibly suppose to exist in connection with the structural endowments of the skin. I am well aware that this must necessarily be a very incomplete performance, since to make it anything like exhaustive would imply a better knowledge both of anatomy and physiology than is at present possessed. I must plead my own personal limitations in these respects if I deal with the subject from a too exclusively clinical point of view. In undertaking such a subject, I would first to try to enumerate the defects in the development of the skin which may occur during intra-uterine life, and which may be obvious at the time of what is called birth. Some of these are the same in kind as those which we see subsequently evolved. In the case of the disease known as ichthyosis, I believe it is the fact that it usually takes its origin during intra-uterine existence, but it may be in many cases so slight at the time of birth that its presence is entirely overlooked. On the other hand, it may have already developed to such a degree of severity that the infant is quite incapable of taking on the functions of life for itself. The skin may be, indeed, almost wholly disorganized. The disorganization probably chiefly involves the sebaceous glandular system. In families in which ichthyosis prevails, we not unfrequently are told that several of the infants were born so severely affected that they survived only a few days. I possess the portrait of a young girl who was the subject of this disease in a severe form, who had herself almost succumbed during the first week, and most of whose brothers and sisters, yet more severely affected than herself, had perished. It may be that, in the worst cases of all, the ichthyotic skin is a cause of the death of the fœtus, and of consequent miscarriages. I do not, however, know whether integrity of cutaneous function is in any degree necessary as a condition of intra-uterine life, it may be that it is not. It is certain that infants born with the very worst forms of ichthyosis, and destined to die within a very few days, often, or indeed usually, appear to be perfectly developed in all other respects.

If we take the worst forms of congenital ichthyosis as our type cases, we may at once recognize that the defective organization which gives rise to it may occur in the most various degrees of severity. The slightest forms of what is known as xerodermia might well be known as ichthyosis minimum, and in still further reduction of severity we have the cases in which no morbid appearances whatever are recognizable, but the patient simply has a skin less soft and unctuous than is normal.

It is, I believe, generally held that tubercular ulceration of the larynx is not primary, but is due usually to secondary infection by the sputum. My impression is that true tubercular ulcers of the tongue and mouth stand in the same position, and are rarely, if ever, primary. They are quite different from lupus ulceration affecting the same parts. They run, according to my experience, a wholly different course. Lupus of the mucous membranes is usually very slow in its development, but if a patient have true tubercular ulceration in the mouth it is probable that his death is not far distant. The difference is that in the one case the patient is the subject of severe tuberculosis of the viscera prior to the formation of the ulcers in the mouth. I have recently had under observation a case of what might be termed acute tuberculosis affecting the tongue and palate, the patient dying within a few months of the first formation of the ulcers with extensive tubercular disorganization of his supra-renal bodies. For those who believe that common lupus is to be considered as a form of tuberculosis, the important clinical differences between these two maladies are well worthy of investigation. It may be worth noting in passing that in cases of ordinary lupus affecting the mucous membrane of the mouth it is very rare indeed for the tongue to suffer.

Examples of multiplicity of malignant development occur not very infrequently on the female genitals. Here we have no doubt another instance of the influence of chronic inflammation when combined with senility in favouring the development of cancerous processes. I have recently seen an

old lady of 64, who had on her right external labium an ulcerated cancerous growth about the size of a penny. It had been present for many months, but was not at present attended by any gland disease, nor was there any great amount of implication of the parts at its base. Almost exactly on the opposite labium was a second and much more recent formation of a similar nature. It was quite isolated, and not larger than a sixpence. The question arises, was the second growth due to infection by the first, or did it simply imply a remarkable tendency to the cancerous process on the part of the patient, which had been localized by the irritation of contact? The latter is, I should think, the more correct supposition. In the case of the tongue and mouth we not unfrequently see multiple, or almost symmetrical, developments of epithelial cancer, under conditions in which infection by contact is impossible; nor are there, so far as I know, any observations which favour the belief that the cancerous process can be easily communicated by auto-innoculation.

It appears likely that the discovery of psorosperms in relation with certain diseases of the skin, will open for us a new chapter in dermatology. Not only are these organisms claimed as having important relations with Paget's disease of the nipple, but they have been recognized in certain other maladies which manifest contagious properties not only by extension on the skin of the patient himself, but also by communicability to others. As a type of this class of skin affections we have molluscum contagiosum, the true nature and cause of which has long been a puzzle to us all. No one can, I think, have given any reasonable amount of attention to the clinical course of this peculiar malady without arriving at the conclusion that it must have as its cause some "contagium animatum" just as definite and peculiar as the itch insect in scabies or the achorion of favus. This conclusion is one which I have long ago and repeatedly expressed. Molluscum contagiosum spreads by contagion only, and has no relation whatever to the health of the patient. Yet, although we have long been familiar with what were known as the "molluscous bodies," and have suspected they might have something to do

with the contagious properties of the malady, no definite opinion as to their nature had until quite recently been arrived at. It is now suggested (Neiser of Breslau) that they are psorosperms. Here, as elsewhere, we encountered the difficulties in recognition, and the question still remains an open one as to whether the supposed psorosperms may not be in reality altered epithelial cells. Yet more definitely in connection with psorosperms is the disease to which Darier and Thibault have given the name "Psorospermose folliculare." This malady had probably been known to many of us long before its asserted connection with the cause referred to. I suspect that it is the same that I myself inscribed under the name of "lichen spinulosum."

Through the kindness of my friend and colleague, Mr. Hurry Fenwick, I have had the opportunity of examining another case which well illustrates the remarks made in ARCHIVES, Vol. II. page 202, as to the tendency of certain forms of melanotic sarcoma to affect the lymphatic trunks themselves. I there mentioned cases in which the primary growth was on the foot, and in which innumerable secondary ones were developed on the same limb in the line of the lymphatics. A dissection by Dr. Cathcart, in the museum of the College of Surgeons at Edinburgh, was mentioned, in which it was demonstrated that little bead-like nodules had been formed along the lymph trunks. In Mr. Fenwick's case the man has two fungating growths of sarcoma (slightly pigmented) under the tread of one foot. The first of them was first noticed about nine months ago, and was attributed to a slight injury. No mole was known to have been present. Some satellite subcutaneous nodules may now be detected on the sole of the foot, and behind the internal maleolus the knotted indurations of the lymphatic trunks are easily felt. Similar conditions may be traced up the calf and behind the knee to inner side of lower part of thigh. In the lower part of Scarpa's triangle there is a large mass of enlarged glands. My point is, that in certain forms of sarcoma there is a remarkable tendency to infect the trunks of the lymphatics leading to the proximal glands. This is very rare in scirrhus, and never seen, I think, in epithelioma.

All the facts with which I have become acquainted in reference to the recent epidemic of Influenza have been strongly in support of the belief that the disease spreads almost solely by personal contagion. This was the view which was advocated a year ago in the ARCHIVES. On the recent occasion the disease began at Grimsby and Hull, sea-port towns receiving many vessels from abroad and in constant communication with each other. From those towns it spread to others adjacent, Malton, Selby, and York. From Sheffield it was subsequently brought to a committee-room of the House of Commons, and spread through the ranks of the officials and members in a manner which was clearly suggestive of personal contagion. The severity of the disease in certain towns whilst others wholly escaped, and the implication of individual families and establishments in those towns, are strongly suggestive of the same fact. It seems to my mind quite impossible that a disease which depended upon a poison which existed free in the atmosphere, and could be blown about over large areas, should be limited in its distribution in the fashion which we have just witnessed in the case of influenza. The laws which regulate its distribution, making free allowance for the vigour of its infectious properties and the almost entire neglect of precautions, appear to be exactly like those of smallpox and measles. An important review of the facts on this subject has been brought before the Epidemiological Society by Dr. Sisley, of St. George's Hospital. Dr. Sisley has given himself much trouble in investigating certain alleged exceptional facts, such as the occurence of influenza in a man who had been isolated in a lighthouse. This alleged fact broke down when examined, just as most such do, by the discovery that the man did not develop the disease until some time after he had been taken off the lighthouse. There was also another source of fallacy, in that ships had communicated with the lighthouse, and might have conveyed the contagion.

"*Studies of Old Case Books*" is the title which Sir James Paget has affixed to the delightful volume which he has just published, and to the contents of which, let me say, it

does not do any sort of justice. So far from its being made up of transcripts of old notes of cases, it consists of original essays written with almost Baconian brevity and charm. We have, indeed, the latest thoughts and the matured wisdom of one who, as all know, combines in the most remarkable manner the faculty of observation with vigour of reflective power. Most of the seventeen essays are on subjects connected with practical surgery, but some—those, for instance, on the "Chronometry of Life" and on the "Use of the Will for Health"—take a wider scope. The first of these is of especial interest and suggestiveness. It is preceded by an abstract of an address at the Royal Institution delivered more than thirty years ago, in which attention was asked to the obvious, but little considered, facts which indicate that all organisms observe, in their development, laws of time which are as definite as those which regulate their size, weight and proportion. These laws control not only growth, but degeneration also. After a most instructive exposition of their general bearing, Sir James proceeds to consider the aberrations, and to show us that what we sometimes count as diseases ought, more exactly, to be classed as merely Errors in Chronometry, or "unpunctualities in Life." He points out that not only has the body as a whole its time-rate and is destined to grow old by definite and measured stages, but that each tissue and each several organ is subject to the same law, or rather to a parallel law which may concern it alone. Thus one set of tissues or one organ may independently of disease, take on senile degeneration earlier than the rest, or conversely it may have attained premature development. The sexual system, the teeth and the hair afford some of the best examples of these occurrences. Such explanations as are possible are pointed out, but it is fully admitted, as was indeed inevitable, that in the background are intrinsic peculiarities, in part belonging to the species and in part to the individual, which we can only take count of without hoping to fully understand.

It is very desirable that we should endeavour to be a little precise as to the names which we use in reference to malignant

diseases of the skin. The term sarcoma cutis, sarcoma melanodes, and sometimes primary sarcoma of the skin, have of late come into use in connection with a malady or maladies having but little in common with other diseases known as sarcoma. Our primary conception of sarcomatous new growths, as of all other forms of malignant neoplasm, is that they take their origin at some single part of the body. From this place of primary growth infective material passes into the lymphatics or blood vessels, and the disease may become generalized. Thus a patient may be spotted over with growths of melanotic sarcoma, which may be arranged in fair symmetry, the disease having become generalized and universal. There was always, however, a starting point, and we know nothing of a constitutional predisposition to melanotic sarcoma strong enough to produce a simultaneous development of symmetrical growths in the first instance. Now the disease to which Hebra has given the name Sarcoma Melanodes is usually from the first symmetrical. It commonly, indeed, shows its manifestations on both hands and both feet almost simultaneously. I cannot but think that we have in this most important feature—a generalized primary manifestation as distinct from a local one—a fact which ought to serve a useful purpose in classification; and it may be doubted whether any histological evidence exists which is sufficient to support the propriety of calling such different things by the same name.

THERAPEUTICS.

(*Continued from Vol. II. page* 265.)

No. XI.—*Mercury and the Vaso-Motor Nerves.*

An observant surgeon, who had needed mercury, told me that he could appreciate its action by becoming "conscious of his arteries." "Does it make them throb?" "Well, not exactly that, but still something like it. I feel them to my fingers' ends, and it is a very disagreeable sensation."

No. XII.—*Arsenic Keratosis.*

I find in a case reported by Mr. Brooke, of Manchester, in the *Journal of Dermatology* for January last, an interesting confirmation of what I have written as regards the irritation of the palms and soles by arsenic. The patient was a lady of fifty, who, in consequence of some skin disease (lichen planus?), had had arsenic prescribed. After taking it for twelve months the soles became inflamed, and were the seat of some itching. Soon afterwards a spot formed on her left forefinger. She was not at this time under Mr. Brooke's care, and when she came under his observation some years later she still showed some patches of old lichen planus. The epithelium of her palms and soles was smooth and even, but several times its normal thickness. There was no inflammation, and no callosities were present. The hands gave her no discomfort, but the feet, unless lubricated, soon became painful in walking. On account of the absence of callosities, and of any history of the usual signs of arsenical poisoning, Mr. Brooke, who mentions my cases, is inclined to think that the condition described was rather in connection with the disease than with the remedy. He writes, however, "The

patient insists that this condition originated from the arsenic which she took twelve years ago, and asserts that the burning sensation, which preceded and accompanied the development of the hyperkeratosis, both ceased when the drug was suspended, and re-occurred when it was administered at a later date. In order to test this I persuaded her to take a course of Fowler's solution (3 m), but she stopped it on her own account, saying that it had produced the same symptoms. As she is very observant and not fanciful, the occurrence of the symptoms in connection with the taking of the drug must, I think, be allowed." I have seen so many cases of irritation of the palms and soles from arsenic, that I cannot feel any doubt that the lady was correct in her supposition as to the connection, and the case becomes of much interest as an example of long continuance of a thickened condition after the drug which caused it had been disused. Had it been persisted with, no doubt the "arsenic corns" would have been developed, to be followed possibly by other and yet more serious changes. At p. 169, ARCHIVES, Vol. II., I have mentioned the case of a lady who chiefly recognized the disagreement of arsenic by a burning sensation in her palms and soles. I believe that it is a symptom at least as common as redness of the eyes. As a matter of fact, I have not of late years seen much of this latter time-honoured symptom of arsenical disagreement. On the other hand, I have seen many cases of derangement of the nutrition of the palms and soles. A burning sensation is the most common symptom, and next comes thickening of the epidermis, then the formation of little corns, and next the splitting up of the epidermis and the formation of pits. The last change of all, and fortunately a very rare one (developed only when the remedy is persevered with in spite of warning), is a peculiar form of epithelial cancer (see Plates XIX. and XX.). In two or three cases I have known very profuse sweating of the palms and soles, especially of the latter, to be definitely due to arsenic. In consequence of this profuse perspiration the epidermis becomes sodden and may peel off. In one case in which it was necessary to give arsenic in large doses this condition was produced repeatedly, and always ceased when the drug was disused.

I am convinced that it is not wise or safe to push arsenic in full doses and for long periods, without very carefully watching the symptoms which it produces. The indications of disagreement may be very various in character, and it is not always practicable to secure their disappearance by suspending the remedy. Of the occasional permanence of derangement of nutrition, the case which I have above quoted from Mr. Brooke's paper is an example. Symptoms in connection with the nervous system are those which we ought especially to take note of. Fortunately the cases in which it disagrees are exceptional, and many facts occur in proof that its long continuance is quite compatible with good health. Of the latter I may briefly mention a very definite instance. A distinguished professional athlete consulted me not long ago on account of a copious eruption of psoriasis in very small spots. He had suffered from it for twenty years, and he told me that arsenic was the only remedy from which he got relief. He had taken the drug on and off most of the time, in doses of from three to five minims of Fowler's solution. His warning symptoms were bloodshot eyes and diarrhœa.

No. XIII.—*Arsenic as a cause of Herpes Zoster.*

Dr. L. Neilsen, of the Communal Hospital at Copenhagen, has made an important contribution in support of the belief that arsenic is a not infrequent cause of herpes zoster. He has counted up the cases of psoriasis which have been treated by iodide of potassium and arsenic respectively, and finds that in 520 in which arsenic was used zoster occurred in ten; whilst in the 220 in which the iodide was prescribed, not a single case was observed. For myself, I have never since my original publication on the point entertained the slightest doubt on the question, but my statistics are not quite so strong as those of Dr. Neilsen; for I have seen a few cases in which zoster has occurred during the treatment of psoriasis by other drugs. They have, however, borne no sort of proportion to those in which arsenic was being used.

DISEASES OF THE EYE.

No. XX. — *Myopia and Syphilitic Choroiditis together.*

Mrs. D——, a married lady, consulted me in November, 1890, on account of failure of her sight. She had used myopic glasses all her life, but the definite failure of sight began only five years before I saw her. Her sight then began to be dim, and she saw objects only in wavy lines. The left eye suffered first, the right having failed, so far as she had observed, only during the last few months. She could still with the right just manage to read No. 1. On using the ophthalmoscope I found very unexpected conditions; having supposed from the history that she was the subject of myopia only. As is well shown in two drawings by Burgess, the conditions were fairly symmetrical. In both there were considerable myopic crescents which almost surrounded the discs; and in both there was disorganization of the choroid and retina at the yellow spot, with much pigment accumulation. The conditions were, however, different from those usually seen in myopia; and over a wide extent, about the disc and yellow spot regions, the pigment layer of the choroid was disturbed, and many small white patches had been produced. These were most advanced in the left eye. They resembled the choroiditis disseminata of syphilis. There were, however, no absorption patches in the periphery of the fundus, the changes being limited to the region of the disc and yellow spot. The disc in the right eye was somewhat cupped.

Having found conditions which so closely resembled those of syphilis, I next made inquiries as to any other symptoms which might suggest the presence of taint; and

Mrs. D——, at once divining the object of my inquiries, told me that she believed that she had during her first marriage suffered from the disease. She had then been married five years, and had borne only one child, which had died from meningitis during its first year. She had quite recently taken iodide of potassium on account of pain and tenderness on her shin bones. She was liable to attacks of giddiness with temporary loss of sight, and frequently had what she termed kaleidoscopic lights before her eyes. On one occasion she was much alarmed by the occurrence of total blindness of the left eye, which lasted a few minutes.

The following letter contains her own description of the subjective symptoms :—

"Dear Mr. Hutchinson,—Many thanks for your note. I shall be very pleased to allow you to make a sketch of my eyes. You ask me to give you a description of the tension and lights I complain of in my eyes. I will do my best, but it is rather difficult to explain.

"By tension, I mean that generally, of a morning especially, my eyes feel full at the back and tight, and from time to time the tightness is so intense that the sight seems to go for a few seconds. This only occurs at intervals of days, and sometimes *weeks*. I can best explain it by saying take an orange and squeeze it in a netted bag. I remember having had these feelings in my eyes for *years*, and very often it happened a day or so before I was unwell. The lights I am never without now since about three years—since indeed my eyes became so bad. Whatever I look at has always before it a quivering sort of bright spot or circle, and this *also*, from time to time, attacks me with such large zig-zag, quivering lights, that, for the time, I can see nothing comfortably, and my only way is to close my eyes for, say, three to five minutes till it passes. But it always leaves the eyes weak and watery for a short time. I have described both the tension and lights to all I have as yet consulted, but nobody seems to understand me. I may mention that my eyes are *always* better and easier in every way as the day goes on, and in the evening I rarely feel *any* tension. Latterly, I often feel a sickly feeling if I write much at a time, but this has only come on the last six week or two months. By lamp or candle light now I am *almost entirely* unable to read *any* print, and by daylight it is a great strain even by the strongest reflected light.

"I have entered fully into all I think you wanted to know, and have had pleasure in doing so. If in any way you can see your way to doing me good, or if mine is a specially interesting case, perhaps it may lead you to make discoveries beneficial for the future.

"P.S.—I first noticed I had a spot in my *left* eye in the spring of 1886, when all horizontal lines were to me zig-zag with that eye; but it did not interfere with my general sight till the autumn of 1887, when the sight became as you now see it. The *right* eye was threatened. However, till this last May I hoped it would never get worse, till one day suddenly I saw horizontal lines zig-zag

with the *right* eye, and the disease again developed. As I have told you, my eyes were very bad from small-pox in 1868, and in 1878 and 1879 my heavy trials caused me much crying."

No. XXI.—*A peculiar form of Choroiditis in connection with Senility.*

An old lady of 64, who was sent to me from Guildford by Mr. Evershed, presented a good example of disorganization of the choroid in connection probably with age and myopia. I do not think that there was the slightest reason to suspect syphilis, nor was she the subject of any other disease. She appeared to be in tolerably good health. She had throughout life been short-sighted. During the last two years her sight had greatly failed, and she was now quite unable to read ordinary print. In both eyes there were large wedges of opacity in the lens, but these permitted of a clear view of the fundus. In each eye the choroid was absorbed over a very large extent surrounding the optic nerve. The peculiarity of its absorption was that the margins of the patch were very irregular, although very abrupt. It looked like a leaf eaten by an insect, sharp angular tags running in upon the area of absorption in several places. In both the yellow spot was involved, and in one it was covered by a thick slate-coloured patch, possibly the result of a large extravasation. In the periphery the choroid was healthy. The conditions were not dissimilar to those in Mr. ——, an osteitis deformans case.

No. XXII.—*Permanence of recovery after very severe Ulceration of Cornea.*

I have just seen a good case, illustrating the completeness and permanence of recovery from ulceration of the cornea. A boy named R. M——, aged 13, was under my care for ulcers of the right cornea, involving almost its entire surface. They gave trouble for some considerable time, and he says that I said to his father that I had not had a worse case for long. He finally got well after a seton had been put into the temple. Twenty years later, as a sea captain, aged 33, he came under my care for another ailment, and reminded me of

his eye. He had never had the slightest relapse, and had enjoyed vigorous health. I found his cornea but very slightly damaged. There were thin opacities in several parts, but they were not visible unless carefully looked for. Such cases seem to prove that in some instances, at least, ulceration of the cornea, although severe, is to but a slight extent a constitutional affection.

No. XXIII.—*Punctate Choroiditis in both Eyes—Changes very minute—No history of Syphilis to be obtained beyond that of a whitlow which had possibly been a chancre.*

The following short narrative is of interest as showing how easily possible it is for a history of syphilis to escape notice, and how wholly unobserved may be the secondary phenomena.

A married physician, in large practice and of high training, consulted me on account of punctate choroiditis in his own eyes. He had already been examined, and the conditions well recognized, and he came to me chiefly in reference to the question as to whether the affection was syphilitic. I may say at once that the changes were exceedingly slight, but most unquestionable. The affection had begun by his observing "spots" before the right eye, but later on similar spots were noticed before his left, and those before the right increased. Having been told by an ophthalmoscopic friend that a group of minute white dots were to be seen in his choroid near to the macula in each, he inferred that they must be either syphilitic or tubercular. His age was only thirty-five, he had no albuminuria, and was indeed in very good health. He had never had any venereal affection to his knowledge. Under these circumstances he tried to remember whether he had ever had an erratic chancre, and talking it over with his wife, she reminded him that he had once about four years ago had a very troublesome whitlow. At the time he did not think of syphilis, and he did not notice any enlarged glands nor any secondary symptoms. Nothing followed until the present affection of the eyes, and he had of course had no specific treatment. The whitlow affected one of his finger

nails, and it persisted, so far as he can remember, five or six weeks. It healed under an iodoform ointment. It never interrupted his family practice.

As soon as the whitlow was remembered, and before coming to me, Dr. N—— commenced inunction treatment for his eyes. I advised him to continue it, and during May, 1889, he was slightly salivated. Under these measures his sight improved.*

* *Present State of Eyes, July* 31, 1889.—He can read No. 1, but the lines are wavy, and images not quite distinct. There is a scotoma before the left eye above the yellow spot. The ophthalmoscopic appearances are very slight, and as the pupils are small they are examined with difficulty. At the yellow spot of left eye, I find a small constellation of four minute white dots.

NOTES ON GOUT AND RHEUMATISM.

(*Continued from Vol. II. page* 82.)

No. XIII.—*Remarkable facts as regards Rheumatic susceptibilities—Recurring attacks of Iritis and Sclerotitis in a young man.*

Mr. M. A. G——, æt. 35, came to me Jan. 17, 1874, for recurring attacks of inflammation of the eye. He was tall and of rather dark complexion. Gout was unknown in the family. A grandmother had had acute rheumatism in early life, but was still living and healthy (æt. 90), and free from any arthritic complaint. His father was living and healthy. His mother died at 44, of a throat complaint; she was rather delicate, but not rheumatic. Mr. A. G—— (our patient), at about the age of 17, had his first attack of sclerotitis; he knew of no cause. He was then at work as a builder, and spent most of his time in a small shop. He had at that time never suffered from arthritis, and had never had gonorrhœa. He was laid up six weeks with inflammation of the right eye. Since then he has had repeated attacks, and has often been in a dark room for six weeks at a time. The attacks have usually been in the winter months, but once he was laid up with a severe one during very hot weather in July. He is an observant man, and tells me that he is unable to assign any cause for his attacks; sometimes they have been due to exposure to cold east wind, but often there has been no cause whatever. Sometimes one eye has been attacked and sometimes the other, but the right most frequently. Repeatedly he has suffered from joint-rheumatism, especially in the elbows. In 1869 he had a severe pain in the shoulders, and lost the use of the arms. He suffers very much from aching in the shoulder

blades. He had never had much pain in his knees, but they were weak from rheumatism. The hips also were weak, and the right often painful, nevertheless he could walk fairly. In 1869 he was threatened with rheumatic fever, but by the use of very hot baths he prevented it. He also had sciatica on the right side; it was a severe attack, the pain beginning behind the hip and passing down as low as the ankle.

Diet.—He has found a glass of ale to dinner and supper suit him well. In 1869, being very weak, he drank freely of port wine; since then he has taken both port and sherry, but quite moderately. A few months ago he tried whisky, but it disagreed with his digestion. He has taken claret and hock freely in summer, but finds beer support his strength better. He is liable at times to become very feeble. He needs a great deal of food and eats very often, taking beefsteak to breakfast. He eats vegetables freely.

Dyspepsia.—He has a sense of oppression at chest, and slight tendency to diarrhœa. Tea causes him indigestion and a sinking feeling at stomach. Tongue clean. Urine, as a rule, clear. He was formerly very liable to colds in the head, though when well not excessively sensitive to changes of temperature. A cold windy day, however, invariably affects him with stiffness and rheumatism. There is a great tendency to perspire, attributable probably in part to his warmth of clothing. His circulation is active, and he never suffers from cold feet or cold hands. He never had chilblains, and wounds always heal remarkably quickly. His experience of taking beer was that it acted injuriously to a slight extent on his rheumatism, but suited his digestion and kept his strength up. Hock and claret, he thinks, agreed with his digestion for a week or two, but "did not keep up his strength."

March 31, 1874, my note was: "The eye had been getting well whilst he was in town; he now comes again about his rheumatism, and tells me that the eye had been quite well ever since. A little strain by gaslight would bring on redness, but he had had no material relapse since I saw him. He has an enormous appetite, and could eat meat at any time and to any extent, but felt so weak that he could scarcely walk about. He sweats profusely on the slightest exertion.

If he walks even in cool weather, it pours off his head. There is no night sweating. As an evidence of the state of his nervous system we may note that he mentions that if he looks at anything his sight becomes dim, and clears alternately in rapid succession. Only by concentrating his attention on it can he see to read long, and if he attends very closely it makes him giddy. He has been at times so fearful of being dizzy that he was unable to attend to what people where saying. He never actually faints. His pulse is rather feeble, 100. Both knees contain fluid in considerable quantity, but he still walks about, and considers that he has no active rheumatism at present. The eyes are now quite quiet, the right pupil being smaller than the left, and both irregular under atropine. He can read No. 1 with either."

No. XIV.—*Anchylosing Rheumatism.*

One of the most interesting cases illustrating anchylosing rheumatism which I have ever seen, occurred in the instance of Miss S——, aged twenty-five, whom I saw with Dr. Morton, of Kilburn. Almost all the joints in her body were anchylosed, and in many, indeed in most, the stiffness was so complete as to suggest osseous union. The arrangement of those which were exempt was very remarkable. Thus the joints of the lower jaw were free, and she could open her mouth tolerably well. All the joints of her knuckles (metacarpo-phalangeal) were free. With the latter was the carpal articulation of the thumb. The rheumatic inflammation had, when I saw Miss S——, almost wholly ceased, and there was no material swelling about any joint. Her limbs and digits were thin and taper, and almost free from deformity, so that with a few exceptions it would not have been noticed that there was any crippling. She had also almost entirely got rid of pain, and although very thin, looked fairly well. She lay in bed propped up by pillows, with the hips slightly bent and the head held forwards, and she could not alter this position in the least. Her hands were placed on the abdomen, and it was not until you tried to move them that you would have

suspected that hips, knees, ankles, shoulders, elbows, and wrists were all fixed. As regards the knees, wrists, and elbows, I believe that the anchylosis was absolute, and only very slight and doubtful motion could be effected at the other joints. At the left shoulder there was certainly some little movement, but after much examination I could not feel sure as to there being any at the right. At her ankles, also, I should have thought that the stiffness was complete, had it not been that she proved to me, by muscular effort, that she could still move the heel slightly. The movement was extremely little, and it may have been effected only through the joints of the tarsus.

Although thus crippled, quite unable to feed herself, or to do anything in her toilet, Miss S——, who was a skilful artist, was still accustomed to spend a great deal of her time in water-colour painting. She accomplished this in spite of the anchylosis of almost all her digital joints, in virtue of the complete and remarkable escape of all the joints of her knuckles, and the carpal thumb joint. Both hands were in a state of pronation, and she had not the slightest movement at either elbow or wrist. The conditions on the two sides of the body were almost exactly symmetrical. A few of the joints of the digits, both of the foot and hand, had escaped, but by far the majority were absolutely stiff. All the fingers were slightly curved, and the only one which gave her material trouble by its awkward position was the left little finger, which had stiffened in a position which crossed the others, and hindered their movement. The disease had not affected the terminal joints of the digits preferentially, for although most of these were anchylosed and a little bent, two or three had escaped. A remarkable feature in the case was that the joints appeared to have either wholly escaped, or to be absolutely stiff. Those which were not affected were not in the least swollen, and really moved with almost perfect freedom.

Excepting possibly in the hips, there did not appear to have been any recent increase in stiffness. This exemption of single joints, and stiffening of most, which prevailed in the limbs, was present also probably in the joints of the spine. The head was always bent forwards, never resting on the

pillow, and I was told that this position, apparently so irksome, caused no distress, a circumstance due, no doubt, to complete anchylosis in many of the cervical vertebræ. In spite of this stiffening, Miss S—— could both nod and rotate her head with tolerable freedom.

The history of the case was much what is usual in similar ones. A maternal grandfather had suffered severely from gout, and in some other relatives both gout and rheumatism had shown themselves. Miss S—— in girlhood had been sent to a boarding-school where the rooms were very large and very cold, and where the girls were not allowed to go near the fires. She had suffered extremely during that period of her life from cold extremities. She told me that she believed that a schoolfellow who had sat next to her was now crippled almost to the same degree as herself; yet in Miss S—— rheumatism did not set in until a little time after she had left the school referred to. It began at about the age of sixteen, and very insidiously, attacking first the fingers and wrist of one hand. It afterwards spread gradually to the other limbs, and ended in the almost exact symmetry which I have just described.

Not long after the above notes were taken, Miss S—— began again to be much troubled with pain in her joints and loss of rest. I heard from Dr. Morton that about a year later death closed her sufferings.

No. XV.—*An example of Anchylosing Rheumatism.*

A soldier attended an Exam. at R.C.S., in whom both knees and one wrist were anchylosed. The knees were perfectly straight, but the wrist was stiff in a bent position. Every trace of inflammation had disappeared from all three joints, and there was no thickening. The radio-ulnar joint at the wrist was not affected, and pronation and supination were free. The man gave a history of very severe rheumatic fever consequent upon sleeping in a damp bed. He would not admit having had gonorrhœa at that time or before, but as he was an unmarried soldier of twenty-five this must not be regarded as certain. The recovery except for these joints had been perfect.

No. XVI.—*Last-joint Arthritis, with inherited Gout and feeble circulation, in two sisters—Alliance with Raynaud's malady.*

Dr. Cameron, of the Western Infirmary, Glasgow, was good enough to show me, when I was in that city, two girls, sisters, who suffered from last-joint arthritis. They both of them had very feeble circulation, and were liable to have their hands and feet die. At the time I saw them the feet of the elder sister were stone-cold. As sometimes happens with those who have very cold extremities, they did not suffer from chilblains. Their mother, who was with them, and who was florid and of much better circulation, told me that she had had chilblains frequently. The two girls were of about fifteen and ten respectively. In both, the little finger of both hands was chiefly affected, its last joint being displaced towards the palmar aspect, just as was the final result in Mabey's case. The other fingers were but slightly affected, but in all it was the last joint which had been swollen. The affection was very slight as compared with Mabey's, but it was still quite definite. There was a strong history of gout in the family, both their grandfather and father having suffered.

[The case to which allusion is made as "Mabey's" is that of a girl of that name which is published in my "Illustrations of Clinical Surgery." It is my first and most typical case of "Last-joint Arthritis" (Acro-Arthritis) in a young person with history of inherited gout.]

MISCELLANEOUS.

No. XXXI.—*On Corns under the Nails.*

A CORN consists, I suppose, of a mass of much thickened and horny epidermis, under the centre of which, and probably in part as its cause, there is some hypertrophy of papillæ. In warts the hypertrophy of the papillæ is very great, and there is comparatively little excess in the accumulation of epidermis. In the corn the indurated epidermis completely conceals the overgrown papillæ, but it would be, I suspect, a mistake to believe that there is no overgrowth of the latter. Those who have attempted to pare down corns well know that at a certain depth a very sensitive and vascular structure is reached, and in many this is decidedly above the level of the surrounding skin. Corns, according to an observation which was, I believe, originally made by Hunter, usually result from intermittent pressure. If the pressure is continuous, atrophy rather than hypertrophy results; but if it is intermitted there is an opportunity for the structures which have been made vascular by recent pressure and irritation to take on overgrowth. It is somewhat difficult to apply such an explanation to the development of corns under the edges of nails. It is, however, an unquestionable fact that they do sometimes form in this position.

A young lady named S——, aged about 25, was under my care for some time on account of a most troublesome growth under the edge of one of her finger nails which had all the characters of an ordinary corn. It was very hard, and had somewhat lifted up the edge of the nail.

I pared away both the nail and the corn under it, and then applied strong nitric acid. A sore resulted which took some time to heal; but the end was a complete cure.

The nail of one of her little toes had been quite destroyed by a corn under it.

No. XXXII.—*Neither Vaccination nor Variola protective.*

A surgeon consulted me who had smallpox twice, once in childhood and once at 35. The last was a severe attack. He had been vaccinated repeatedly, and it had always taken. The last time was two years ago; and in spite of the two previous attacks of variola, it took well.

Such facts as these favour the belief that those who soon wear out the protection of vaccination are those easily prone to take variola. The two maladies seem to stand on the same footing.

No. XXXIII.—*Urticarial irritability of Skin on going to bed.*

A physician thus described his symptoms:—"I am so liable to itching of the skin in bed. If I can abstain from scratching for ten minutes or so it will pass off; but if I scratch once I must go on, and it spreads. It may begin anywhere, but usually on my back. If I scratch it spreads from back to limbs, and from one limb to another." "Does the scratching bring out any eruption?" "No, only a little redness, and it is all gone in the morning, and the skin is quite sound and clear. It begins after I have been an hour or two in bed, and just when I am going to fall asleep. It is gone, even in spite of scratching, in an hour or less.

No. XXXIV.—*On taking fluid with meals.*

I observe with pleasure that the verdict of general experience and common sense has been confirmed by scientific experiment in the matter of taking fluid with meals. Dr. Lev. O. Stratievsky, of St. Petersburg, after elaborate trials, has found that fluids materially assist the assimilation of proteids, and announces the following conclusion, which it is to be hoped no future experimenter will controvert:—

"On the whole, the widely spread custom of taking fluids during or just before one's meals, proves to be rational and fully justified on strict scientific grounds."

A CATECHISM OF SURGERY; WITH CASES FOR DIAGNOSIS.

No. LXXIII.—*A case of Apoplexy.*

Read carefully the following case and make a diagnosis before reading the notes of the post-mortem.

"A man, aged 54, had suffered frequently from headaches, which were sometimes very violent, but never so severe as to prevent his performing the ordinary duties of a labourer. When actively employed he suffered least, but on Sundays, and at other times when unoccupied, his spirits were extremely depressed, and the pain in the head more complained of. He frequently experienced great weariness of the limbs, which, occasionally, went to sleep.

"Dec. 15, 1831.—After passing a more comfortable day than for some time previous, he took his supper early and retired to rest, expressing great pleasure at finding himself better than usual. In about an hour after he went to bed, his wife was alarmed by hearing him make a peculiar noise in breathing. On going to him, he informed her that he awoke suddenly, supposing that he had been violently struck at the back of the neck. He could scarcely breathe, and was confident that he was going to die. He almost immediately became insensible. I saw him about twelve o'clock, and was forcibly struck with the peculiar character of the respiration. It consisted of alternate violent spasmodic inspirations and slight groans. There was no stertor. Inspiration had the character of a violent sob; expiration was attended with a long-continued groan. There was complete resolution of all the limbs; when lifted from the bed, they fell as though dead, and appeared quite insensible when pinched or pricked. Common sensation and motion appeared, however, to exist in the face, for, on tickling the cheek with a feather, the muscles contracted, and on introducing fluids into the mouth, the lips and cheeks moved, but he could not swallow. The pupils were not unnaturally dilated, and contracted on the application of light. When spoken to very loudly, and requested to put out his tongue, he made an effort to do so, but did not get it beyond his lips. He gave no other indication of consciousness. He was in a profuse perspiration. As he lay, the head was evidently drawn backwards, arching the neck considerably, and when the neck was straightened, it directly returned into the same position when left to itself. The pulse was 80, small, and rather hard. I immediately took fifty ounces of blood from the arm. He was evidently relieved by the bleeding. He opened his eyes, spoke, said the back of his head and neck were in pain, breathed more calmly, put out his tongue, and moved his limbs. The pulse rose to 90, and was soft. In half an hour after the bleeding he endeavoured to get out of bed, but an effort to vomit coming on he fell backwards

insensible, and again entirely lost the power of moving his limbs: his breathing returned into its former state, and gradually became more difficult; occasionally, a considerable length of time elapsing between the respirations. He soon became quite unconscious of any sound, however loud; respiration became slower and more laboured until about seven o'clock, when he died.

ANSWER.

(*Account of Post-mortem.*)

"A large coagulum of blood was found covering the medulla oblongata, and just extending to the tuber annulare, but not at all covering it. On carefully opening this clot a small aneurism of the basilar artery was discovered. This aneurism, which was about the size of a pea, had given way, and been the source from whence the hæmorrhage had taken place. The clot involved, at their origins, the sixth, seventh, eighth, and ninth pair of nerves, and, of course, must have produced great pressure upon them, and, also, upon the medulla oblongata. A slight thin coagulum extended round the spinal chord in its whole length, which, at the upper part of the chord, in some parts, presented more intense red patches. There were also, in one or two places, small clots on the surface of the cerebellum.

"A comparison of the appearances after death, with the symptoms during life, gives a very satisfactory explanation of the case. We find the affection coming on suddenly, and referred, by the patient, to a blow at the spot where, no doubt, the aneurism had suddenly given way. Then there was resolution of the muscles of voluntary motion, supplied by the spinal nerves, occasioned by the pressure of the clot upon the medulla oblongata. The extraordinary character of the respiration would be accounted for by the respiratory nerves being involved in the clot; while the power of motion and sensation continuing in the face is amply accounted for by the fifth pair of nerves not being included in the mischief. The sensibility of the retina, the intelligence that was exhibited in the attempt to put out the tongue, the power of hearing which that effort indicated, and the continued action of the fifth pair of nerves, all pointed out that the injury was situated below the tuber annulare. These, with the distinct reference of the pain to the upper part of the neck, induced me to predict, before the dissection, that the injury would be found about the medulla oblongata. The great improvement that took place, in consequence of the large abstraction of blood, was another marked feature in the case; and it becomes a question of some interest whether the hæmorrhage were not then put a stop to, and whether recovery might not have taken place had not the attempt to vomit, by increasing the impulse of the circulation in the brain, again occasioned it. No doubt the clot was increased after the attempt to vomit, for I cannot suppose hearing to have existed, as it did even before the bleeding, when the seventh pair of nerves had become so much involved in the mischief, as the post-mortem demonstrated that they ultimately were." The above case-notes and comments are by Mr. Egerton Jennings, who recorded the case in 1833.*

No. LXXIV.—*Case of injury to Perineum.*

1. What errors in practice were there in the following case?
2. What was the probable injury?
3. What ought to have been done?

* Vol. i., "Transactions Provincial Medical Association."

"William Windsor, æt. 12, glass-cutter, whilst endeavouring to walk along an iron rail, fell on the rail with one leg on each side of it, so that his perineum came in violent contact with the iron. The accident happened at eleven o'clock on the 30th of July. I saw him at two; there was a small wound in the perineum, immediately behind the scrotum, from which a little blood had flowed. He had tried to make water, but was unable. I attempted repeatedly to pass a catheter into the bladder, but without avail; it passed about four inches down the urethra and there stopped, and all the time these attempts were being made blood flowed in considerable quantities through the catheter and by the side of it. The boy complained of great pain when the catheter reached that part of the urethra which corresponded with the external wound. At five o'clock the attempts to pass a catheter were repeated, but unavailingly. At ten p.m. there was much swelling about the scrotum and perineum, the bladder was greatly distended, and the desire to make water was urgent; it was determined, therefore, to puncture the bladder through the rectum, and to trust to time for the restoration of the natural passage. The trocar was accordingly introduced, but in withdrawing the stilet the canula by some mischance slipped from the opening. Nevertheless water flowed freely from the rectum, the distension of the bladder ceased, and after making incisions into the scrotum and perineum for the evacuation of the effused urine, a poultice was applied to these parts, and an opiate was administered. On the following morning it was found that the boy had slept comfortably, and that the urine had flowed freely from the rectum. The bowels were distended and uneasy, the pulse small, and the tongue coated. About four o'clock p.m. vomiting commenced, and continued at intervals for several hours; the bladder became distended, but urine flowed through the rectum when pressure was made on the lower part of the belly. The lower part of the abdomen became tender on pressure, the pulse was, in the evening, small and quick; there was also great restlessness, thirst, and a depressed and anxious countenance."

ANSWERS.

1 & 3. Instead of puncture by the rectum, a free incision ought to have been made in the perineum and the ruptured urethra reached. If needed, a catheter should have been introduced.

2. The boy died the day after the last note. There was extravasation and inflammation between bladder and rectum. The urethra had been torn across, and there was extravasation into the scrotum.

No. LXXV.—*On Actino-Mycosis.*

1. What is the nature of the disease known as "actino-mycosis"?

2. What is the meaning of the word?

3. Is there any reason to believe that it is ever communicated from animals to man?

4. Is there reason to believe that it is conveyed to man by the flesh of animals taken as food?

5. Is the fungus ever found excepting as a growth within the living body?

6. Who first described the disease?

7. Where are the best English sources of information respecting it.

ANSWERS.

1. In "actino-mycosis" a fungus growth of a peculiar nature develops locally in some part of the body and slowly spreads to other parts.

2. The name means Ray-fungus, and is descriptive of the manner in which the filaments branch out from a centre.

3. Although far more common in animals than in man, there is not the slightest reason for believing that it is ever conveyed from the one to the other by contagion. Its subjects are not those who are likely to have come in contact with animals or their carcases.

4. There is no reason to suspect that the flesh of diseased animals has ever been the means of conveying it. The cases which have been observed in man have never appeared to be in any way associated with the disease in animals.

5. The fungus has never as yet been identified outside the living body. We know it only in connection with the disease which has received its name.

6. It was first recognized by Bollinger in cattle in 1877. In the same year Dr. Israël described cases in the human subject, and its pathology was subsequently worked out by Dr. Ponfick.

7. A good account will be found in the New Sydenham Society's volume on "Microparasites in Disease," and an excellent clinical record of a case in Vol. 72 of the Medico-Chirurgical Transactions by Dr. Douglas Powell and Mr. Rickman Godlee.

No. LXXVI.—*On Action-Mycosis.*

1. What part is most usually first infected in "actino-mycosis"?

2. What chief difference is observed in the disease in animals and in man?

3. In what part do the tumours develop, and what peculiarities do they display?

4. Is it a rapidly fatal disease?

5. What is the botanical position of the fungus?

6. For what may "actino-mycosis" be mistaken, and how is the diagnosis to be made?

ANSWERS.

1. The region of the mouth is the part most usually affected, probably because the infection is received in connection with decayed teeth.

2. In man the bone itself rarely becomes extensively diseased, whilst in cattle the jaws suffer severely and become much enlarged. In its main features the disease is the same in animals and in man.

3. The growths usually develop under the skin or mucous membrane, and a very peculiar proneness to travel has been observed. Thus the induration may be found at a distance of several inches from its first site, without any traces having been left.

4. It is a fatal disease, but very slow in its course.

5. Its precise botanical position has not been assigned, since it cannot be cultivated outside the body, and nothing is known as to its source of origin.

6. It may be mistaken for malignant new growth, for scrofulous inflammation, or, in the case of the lung, for chronic pneumonia or phthisis. The microscope affords the only means for definite diagnosis.

No. LXXVII.—*On Cyanosis.*

1. What is meant by the term "cyanosis"?

2. What is the commonest cause of cyanosis?

3. How may the causes of cyanosis be classed?

4. Into what groups may cyanosis cases be divided?

5. Mention the principal causes of non-congenital cyanosis.

6. To what diseases does the cyanotic state predispose, and what does it prevent?

ANSWERS.

1. "Cyanosis" is the name for the blue or purple condition caused by defective oxygenation of the blood.

2. The commonest cause of what may be called the typical condition of cyanosis is imperfect development of the heart, the blood of the right auricle passing through an open foramen ovale into the left chambers.

3. The causes of cyanosis may be classed firstly as congenital or acquired, next as organic or functional, next, according to seat of impediment, into cardiac, arterial, and pulmonary.

4. Cyanosis may be grouped according to its causes or according to its clinical peculiarities, as general or local, permanent or temporary, symptomatic or essential. Perhaps the most important clinical groups are those due—(1) to malformation of the heart; (2) to acquired thoracic disease; (3) to arterial spasm as in Raynaud's disease; (4) to direct exposure to cold.

5. Acquired heart disease, especially feebleness of the right side; disease of the lungs themselves; pleurisy, with adhesions; aneurism.

6. It causes general torpor of nerve functions, and is liable to be attended by convulsive explosions. It favours dropsical effusions and œdema. It is preventive of acute inflammations and of tuberculosis.

No. LXXVIII.—*The Protective Periods of Specific Fevers.*

Give instances of contagious fevers which do not protect from second attacks. Mention examples of temporary protection.

ANSWERS.

None of the contagious fevers protect absolutely.

The foot and mouth disease in the domestic animals does not protect. An animal may suffer a second time within a few months. Observations are needed as to whether second attacks are milder, and also as to whether they are common or only exceptional.

Syphilis protects only imperfectly. A long interval probably always occurs, and it may be the fact that the protection lasts the life in most persons, but severe second attacks are certainly possible.

Vaccination protects in most persons only for a limited time, whether from re-vaccination or variola.

Erysipelas and diphtheria (if they may be counted as contagious fevers) do not protect at all, but render the individual, or possibly the part, more prone than before to take on similar disease. Second attacks are milder than the first, and if many recurrences have occurred the diminished virulency is progressive.

Common catarrhal fevers, whether derived by contagion or otherwise, protect only for short periods.

No. LXXIX.—*Diseases of the Domestic Animals.*

The principal febrile diseases which affect the domestic animals are—1. Foot and mouth disease. 2. Rinderpest or cattle plague. 3. Pleuro-pneumonia; and 4. Anthrax or splenic fever. Distinguish briefly the one from the other.

ANSWERS.

1. Foot and mouth is a comparatively mild disease which affects all the domestic animals, and is marked by eruptions on the feet, lips, udder, &c. It is not attended by a large mortality, but much enfeebles its subjects. One attack does not prevent a second.

2. Cattle plague or Rinderpest is restricted to ruminants, and has its native haunts in Asia. When it occurs in Europe it is imported, and it has not yet been known in America, Australia, or New Zealand. It is very infectious and very fatal. Death occurs in a few days with ulcerations in the intestines and croupous inflammation of the air passages.

3. Pleuro-pneumonia is a much slower fever, lasting from a few weeks to a few months, and characterized by cough and chest symptoms. Recovery is exceptional. Pneumonic consolidation with fibrinous or fluid effusions into the pleura are the lesions found. It is entirely confined to oxen.

4. Anthrax or splenic fever is not confined to any one animal, and may affect man. It is not confined to any latitude or to any country, and is believed to have been the murrain of ancient history and of classical writers. It has two forms, one in which a carbuncular formation precedes the fever, and

the other which is without it. Thus anthrax-fever may occur without anthrax, and this is indeed the more common type. It is also the more acute, and may end fatally in a few hours. In the carbuncular type, multiple swellings form in the cellular tissue of various parts. It is attended by great enlargement of the spleen, and a remarkable decomposition of the blood.

No. LXXX.—*Fistula in Ano.*

1. Where is the internal orifice of a fistula in ano usually situated?

2. Is it necessary to lay open a fistula up to its highest point, or may we be content to divide only the parts below the inner opening?

3. Are fistulæ always complete?

ANSWERS.

1. We owe to M. Ribes, a French surgeon (1820), the observation that the internal orifice is never high up. It scarcely ever exceeds the distance of an inch and a quarter, and is often much nearer the skin. On this important point Sir Benjamin Brodie wrote as follows:—

"The first thing to be done is to find the inner opening. I do not say that you will always succeed in finding it—certainly not the first time, but you will rarely fail if you look for it in the right place. Formerly, I often failed, and for this reason—I did not know where to look for it. I used to think that it was to be found in the upper part of the sinus, but it is never found there if the sinus runs high up. You must search for it immediately above the sphincter muscle." *

2. It is most important to find the internal orifice, since if it is left on one side the cure will be imperfect. It is not needful to divide the parts higher up. If there be a higher pouch, it may be left to heal of itself after the external sphincter has been cut.

3. Some surgeons, led by M. Ribes, have held that all fistulæ are complete, and that all that is needed is skill in finding the inner opening. This is doubtless pushing matters too far, but it may be admitted to be near the truth.

* *Lancet*, January 26, 1844, p. 533.

No. LXXXI.—*On the Use of the term "Acro."*

1. In what sense may the term "acro" be used as a prefix in reference to disease?

2. What parts of the human body are in reference to the circulation to be accounted extremities?

3. How is the term "acro" used in reference to Acromegaly?

4. In what other combinations may the prefix be conveniently employed.

ANSWERS.

1. The term "acro" in such words as Acropolis, Acro-Corinthus, &c., means the highest point, the summit. In the botanical term Acrogen it designates a plant which grows at its point, but does not increase in thickness. In medical use it is applied not only to the summit, but to the ends of the extremities also. It is applicable to any disease which especially affects the extremities.

2. The digits both of hands and feet, the nose, the tip of the chin, and the lips, the ears, and the penis, are all to be accounted as extremities; although in respect to their forces of circulation and blood-supply they differ much.

3. In some cases the term "acro" is used in reference not so much to the digits, tip of nose and ears, as to the hands and feet as a whole and the head as a whole.

4. The word Acromegaly is applied to a disease in which the whole of both hands and both feet and the whole head undergo increase in size. The term Acrodynia is already in use for vague pains in the ends of digits (see New Sydenham Society's Lexicon). Such terms as Acro-dermatitis, Acro-arthritis, Acro-sphacelus, Acro-asphyxia, and the like, may be very probably found useful in the future.

No. LXXXII.—*Tracheal Tugging.*

1. What is meant by the expression "tracheal tugging"?

2. How is it estimated?

3. Is there reason to think that it is a trustworthy symptom?

4. Of what special condition is it supposed to be diagnostic?

ANSWERS.

1. The expression "tracheal tugging" was given by Prof. W. S. Oliver to a sensation experienced by the patient, if the subject of aneurism of the aorta, when the trachea is lifted upwards.

2. The patient is to be placed in the erect position with closed mouth and chin elevated. The surgeon then takes the cricoid cartilage between his finger and thumb and gently draws it upwards. If dilatation or aneurism of the arch of the aorta be present, pulsation will be distinctly felt by the surgeon's hand.

3. There seems reason to believe that it is a valuable symptom, especially in the early stage of aneurism. It has recently been carefully investigated by Dr. MacDonnell, of Montreal, who believes that it is never present except in aneurism, and that it may be sometimes recognized when other symptoms are absent.

4. Dr. MacDonnell holds that it cannot be produced by direct pressure on the trachea, and that it attends those aneurisms only which involve the transverse arch. It is indicative of an aneurism so placed as to press upon the left bronchus from above downwards.